FCC Test Report (BT-LE)

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FCC ID: AK8J20H088

Test Model: J20H088

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Applicant: Sony Corporation

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Release Control Record

Issue No.	Description	Date Issued
RF160512E02-5	Original release.	July 15, 2016

1 Certificate of Conformity

Product: WLAN/BT Module

Brand: FOXCONN

Test Model: J20H088

Sample Status: ENGINEERING SAMPLE

Applicant: Sony Corporation

Test Date: May 26 to June 16, 2016

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** July 15, 2016
Wendy Wu / Specialist

Approved by : _____ , **Date:** July 15, 2016
May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (SECTION 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -13.71dB at 3.8203MHz.
15.205 & 209 & 15.247(d)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -4.6dB at 260.79MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is i-pex(MHF) not a standard connector.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.86 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.19 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	3.43 dB
	6GHz ~ 18GHz	3.49 dB
	18GHz ~ 40GHz	4.11 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (BT-LE)

Product	WLAN/BT Module
Brand	FOXCONN
Test Model	J20H088
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	3.3Vdc from host equipment
Modulation Type	GFSK
Modulation Technology	DTS
Transfer Rate	Up to 1Mbps
Operating Frequency	2402MHz ~ 2480MHz
Number of Channel	40
Output Power	7.228mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. There are WLAN, BT technology used for the EUT.
2. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4GHz)	Bluetooth
2	WLAN (5GHz)	Bluetooth
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

3. The EUT has two samples, which are identical to each other in all aspects except for the followings:

Model	Sample	Different
J20H088	Sample 1	with Con4/Con5 switch connector
	Sample 2	without Con4/Con5 switch connector
According to above samples, **Sample 1** was selected as representative model for the test and its data was recorded in this report.		

4. The antennas provided to the EUT, please refer to the following table:

For BT used								
Item	Brand	Model	Antenna Gain(dBi) (included cable loss)	Frequency rang (GHz)	Antenna type	Connector type	Cable loss(dB)	Cable length (mm/cm)
1	FOXCONN	WDAN-S1TV0100-DH	-0.82	2.4~2.4835	PIFA	i-pex(MHF)	0.19	100mm(10cm)
2	FOXCONN	ANTS2M1-CSG02-EF	-0.84	2.4~2.4835	PIFA	i-pex(MHF)	0.21	110mm(11cm)
3	FOXCONN	ANTS2M1-CSG03-EF	-0.86	2.4~2.4835	PIFA	i-pex(MHF)	0.23	120mm(12cm)
4	FOXCONN	ANTS2M1-CSG04-EF	-0.88	2.4~2.4835	PIFA	i-pex(MHF)	0.25	130mm(13cm)
5	FOXCONN	ANTS2M1-CSG05-EF	-0.90	2.4~2.4835	PIFA	i-pex(MHF)	0.27	140mm(14cm)
6	FOXCONN	ANTS2M1-CSG06-EF	-0.92	2.4~2.4835	PIFA	i-pex(MHF)	0.29	150mm(15cm)
7	FOXCONN	ANTS2M1-CSG07-EF	-0.93	2.4~2.4835	PIFA	i-pex(MHF)	0.30	160mm(16cm)
8	FOXCONN	ANTS2M1-CSG08-EF	-0.95	2.4~2.4835	PIFA	i-pex(MHF)	0.32	170mm(17cm)
9	FOXCONN	ANTS2M1-CSG09-EF	-0.97	2.4~2.4835	PIFA	i-pex(MHF)	0.34	180mm(18cm)
10	FOXCONN	ANTS2M1-CSG10-EF	-0.99	2.4~2.4835	PIFA	i-pex(MHF)	0.36	190mm(19cm)

11	FOXCONN	ANTS2M1-CSG01-EF	-1.01	2.4~2.4835	PIFA	i-pex(MHF)	0.38	200mm(20cm)
12	FOXCONN	ANTS2M1-CSG11-EF	-1.03	2.4~2.4835	PIFA	i-pex(MHF)	0.40	210mm(21cm)
13	FOXCONN	ANTS2M1-CSG12-EF	-1.05	2.4~2.4835	PIFA	i-pex(MHF)	0.42	220mm(22cm)
14	FOXCONN	ANTS2M1-CSG13-EF	-1.07	2.4~2.4835	PIFA	i-pex(MHF)	0.44	230mm(23cm)
15	FOXCONN	ANTS2M1-CSG14-EF	-1.09	2.4~2.4835	PIFA	i-pex(MHF)	0.46	240mm(24cm)
16	FOXCONN	ANTS2M1-CSG15-EF	-1.11	2.4~2.4835	PIFA	i-pex(MHF)	0.48	250mm(25cm)
17	FOXCONN	ANTS2M1-CSG16-EF	-1.12	2.4~2.4835	PIFA	i-pex(MHF)	0.49	260mm(26cm)
18	FOXCONN	ANTS2M1-CSG17-EF	-1.14	2.4~2.4835	PIFA	i-pex(MHF)	0.51	270mm(27cm)
19	FOXCONN	ANTS2M1-CSG18-EF	-1.16	2.4~2.4835	PIFA	i-pex(MHF)	0.53	280mm(28cm)
20	FOXCONN	ANTS2M1-CSG19-EF	-1.18	2.4~2.4835	PIFA	i-pex(MHF)	0.55	290mm(29cm)
21	FOXCONN	WDAN-S1TV0300-DH	-1.20	2.4~2.4835	PIFA	i-pex(MHF)	0.57	300mm(30cm)
22	FOXCONN	WDAN-S1TV0310-DH	-1.22	2.4~2.4835	PIFA	i-pex(MHF)	0.59	310mm(31cm)
23	FOXCONN	WDAN-S1TV0320-DH	-1.24	2.4~2.4835	PIFA	i-pex(MHF)	0.61	320mm(32cm)
24	FOXCONN	WDAN-S1TV0330-DH	-1.26	2.4~2.4835	PIFA	i-pex(MHF)	0.63	330mm(33cm)
25	FOXCONN	WDAN-S1TV0340-DH	-1.28	2.4~2.4835	PIFA	i-pex(MHF)	0.65	340mm(34cm)
26	FOXCONN	WDAN-S1TV0350-DH	-1.30	2.4~2.4835	PIFA	i-pex(MHF)	0.67	350mm(35cm)
27	FOXCONN	WDAN-S1TV0360-DH	-1.31	2.4~2.4835	PIFA	i-pex(MHF)	0.68	360mm(36cm)
28	FOXCONN	WDAN-S1TV0370-DH	-1.33	2.4~2.4835	PIFA	i-pex(MHF)	0.70	370mm(37cm)
29	FOXCONN	WDAN-S1TV0380-DH	-1.35	2.4~2.4835	PIFA	i-pex(MHF)	0.72	380mm(38cm)
30	FOXCONN	WDAN-S1TV0390-DH	-1.37	2.4~2.4835	PIFA	i-pex(MHF)	0.74	390mm(39cm)
31	FOXCONN	WDAN-S1TV0400-DH	-1.39	2.4~2.4835	PIFA	i-pex(MHF)	0.76	400mm(40cm)
32	FOXCONN	WDAN-S1TV0410-DH	-1.41	2.4~2.4835	PIFA	i-pex(MHF)	0.78	410mm(41cm)
33	FOXCONN	WDAN-S1TV0420-DH	-1.43	2.4~2.4835	PIFA	i-pex(MHF)	0.80	420mm(42cm)
34	FOXCONN	WDAN-S1TV0430-DH	-1.45	2.4~2.4835	PIFA	i-pex(MHF)	0.82	430mm(43cm)
35	FOXCONN	WDAN-S1TV0440-DH	-1.47	2.4~2.4835	PIFA	i-pex(MHF)	0.84	440mm(44cm)
36	FOXCONN	WDAN-S1TV0450-DH	-1.49	2.4~2.4835	PIFA	i-pex(MHF)	0.86	450mm(45cm)
37	FOXCONN	WDAN-S1TV0460-DH	-1.50	2.4~2.4835	PIFA	i-pex(MHF)	0.87	460mm(46cm)
38	FOXCONN	WDAN-S1TV0470-DH	-1.52	2.4~2.4835	PIFA	i-pex(MHF)	0.89	470mm(47cm)
39	FOXCONN	WDAN-S1TV0480-DH	-1.54	2.4~2.4835	PIFA	i-pex(MHF)	0.91	480mm(48cm)
40	FOXCONN	WDAN-S1TV0490-DH	-1.56	2.4~2.4835	PIFA	i-pex(MHF)	0.93	490mm(49cm)
41	FOXCONN	WDAN-S1TV0500-DH	-1.58	2.4~2.4835	PIFA	i-pex(MHF)	0.95	500mm(50cm)
42	FOXCONN	WDAN-S1TV0510-DH	-1.60	2.4~2.4835	PIFA	i-pex(MHF)	0.97	510mm(51cm)
43	FOXCONN	WDAN-S1TV0520-DH	-1.62	2.4~2.4835	PIFA	i-pex(MHF)	0.99	520mm(52cm)
44	FOXCONN	WDAN-S1TV0530-DH	-1.64	2.4~2.4835	PIFA	i-pex(MHF)	1.01	530mm(53cm)
45	FOXCONN	WDAN-S1TV0540-DH	-1.66	2.4~2.4835	PIFA	i-pex(MHF)	1.03	540mm(54cm)
46	FOXCONN	WDAN-S1TV0550-DH	-1.68	2.4~2.4835	PIFA	i-pex(MHF)	1.05	550mm(55cm)
47	FOXCONN	WDAN-S1TV0560-DH	-1.69	2.4~2.4835	PIFA	i-pex(MHF)	1.06	560mm(56cm)
48	FOXCONN	WDAN-S1TV0570-DH	-1.71	2.4~2.4835	PIFA	i-pex(MHF)	1.08	570mm(57cm)
49	FOXCONN	ANTS2M1-CSG20-EF	-1.72	2.4~2.4835	PIFA	i-pex(MHF)	1.09	575mm(57.5cm)
50	FOXCONN	WDAN-S1TV0580-DH	-1.73	2.4~2.4835	PIFA	i-pex(MHF)	1.10	580mm(58cm)
51	FOXCONN	WDAN-S1TV0590-DH	-1.75	2.4~2.4835	PIFA	i-pex(MHF)	1.12	590mm(59cm)
52	FOXCONN	WDAN-S1TV0600-DH	-1.77	2.4~2.4835	PIFA	i-pex(MHF)	1.14	600mm(60cm)

53	FOXCONN	WDAN-S1TV0610-DH	-1.79	2.4~2.4835	PIFA	i-pex(MHF)	1.16	610mm(61cm)
54	FOXCONN	WDAN-S1TV0620-DH	-1.81	2.4~2.4835	PIFA	i-pex(MHF)	1.18	620mm(62cm)
55	FOXCONN	WDAN-S1TV0630-DH	-1.83	2.4~2.4835	PIFA	i-pex(MHF)	1.20	630mm(63cm)
56	FOXCONN	WDAN-S1TV0640-DH	-1.85	2.4~2.4835	PIFA	i-pex(MHF)	1.22	640mm(64cm)
57	FOXCONN	WDAN-S1TV0650-DH	-1.87	2.4~2.4835	PIFA	i-pex(MHF)	1.24	650mm(65cm)
58	FOXCONN	WDAN-S1TV0660-DH	-1.88	2.4~2.4835	PIFA	i-pex(MHF)	1.25	660mm(66cm)
59	FOXCONN	WDAN-S1TV0670-DH	-1.90	2.4~2.4835	PIFA	i-pex(MHF)	1.27	670mm(67cm)
60	FOXCONN	WDAN-S1TV0680-DH	-1.92	2.4~2.4835	PIFA	i-pex(MHF)	1.29	680mm(68cm)
61	FOXCONN	WDAN-S1TV0690-DH	-1.94	2.4~2.4835	PIFA	i-pex(MHF)	1.31	690mm(69cm)
62	FOXCONN	WDAN-S1TV0700-DH	-1.96	2.4~2.4835	PIFA	i-pex(MHF)	1.33	700mm(70cm)
63	FOXCONN	WDAN-S1TV0710-DH	-1.98	2.4~2.4835	PIFA	i-pex(MHF)	1.35	710mm(71cm)
64	FOXCONN	WDAN-S1TV0720-DH	-2.00	2.4~2.4835	PIFA	i-pex(MHF)	1.37	720mm(72cm)
65	FOXCONN	WDAN-S1TV0730-DH	-2.02	2.4~2.4835	PIFA	i-pex(MHF)	1.39	730mm(73cm)
66	FOXCONN	WDAN-S1TV0740-DH	-2.04	2.4~2.4835	PIFA	i-pex(MHF)	1.41	740mm(74cm)
67	FOXCONN	WDAN-S1TV0750-DH	-2.06	2.4~2.4835	PIFA	i-pex(MHF)	1.43	750mm(75cm)
68	FOXCONN	WDAN-S1TV0760-DH	-2.07	2.4~2.4835	PIFA	i-pex(MHF)	1.44	760mm(76cm)
69	FOXCONN	WDAN-S1TV0770-DH	-2.09	2.4~2.4835	PIFA	i-pex(MHF)	1.46	770mm(77cm)
70	FOXCONN	WDAN-S1TV0780-DH	-2.11	2.4~2.4835	PIFA	i-pex(MHF)	1.48	780mm(78cm)
71	FOXCONN	WDAN-S1TV0790-DH	-2.13	2.4~2.4835	PIFA	i-pex(MHF)	1.50	790mm(79cm)
72	FOXCONN	WDAN-S1TV0800-DH	-2.15	2.4~2.4835	PIFA	i-pex(MHF)	1.52	800mm(80cm)
73	FOXCONN	WDAN-S1TV0810-DH	-2.17	2.4~2.4835	PIFA	i-pex(MHF)	1.54	810mm(81cm)
74	FOXCONN	WDAN-S1TV0820-DH	-2.19	2.4~2.4835	PIFA	i-pex(MHF)	1.56	820mm(82cm)
75	FOXCONN	WDAN-S1TV0830-DH	-2.21	2.4~2.4835	PIFA	i-pex(MHF)	1.58	830mm(83cm)
76	FOXCONN	WDAN-S1TV0840-DH	-2.23	2.4~2.4835	PIFA	i-pex(MHF)	1.60	840mm(84cm)
77	FOXCONN	WDAN-S1TV0850-DH	-2.25	2.4~2.4835	PIFA	i-pex(MHF)	1.62	850mm(85cm)
78	FOXCONN	WDAN-S1TV0860-DH	-2.26	2.4~2.4835	PIFA	i-pex(MHF)	1.63	860mm(86cm)
79	FOXCONN	WDAN-S1TV0870-DH	-2.28	2.4~2.4835	PIFA	i-pex(MHF)	1.65	870mm(87cm)
80	FOXCONN	WDAN-S1TV0880-DH	-2.30	2.4~2.4835	PIFA	i-pex(MHF)	1.67	880mm(88cm)
81	FOXCONN	WDAN-S1TV0890-DH	-2.32	2.4~2.4835	PIFA	i-pex(MHF)	1.69	890mm(89cm)
82	FOXCONN	WDAN-S1TV0900-DH	-2.34	2.4~2.4835	PIFA	i-pex(MHF)	1.71	900mm(90cm)
83	FOXCONN	WDAN-S1TV0910-DH	-2.36	2.4~2.4835	PIFA	i-pex(MHF)	1.73	910mm(91cm)
84	FOXCONN	WDAN-S1TV0920-DH	-2.38	2.4~2.4835	PIFA	i-pex(MHF)	1.75	920mm(92cm)
85	FOXCONN	WDAN-S1TV0930-DH	-2.40	2.4~2.4835	PIFA	i-pex(MHF)	1.77	930mm(93cm)
86	FOXCONN	WDAN-S1TV0940-DH	-2.42	2.4~2.4835	PIFA	i-pex(MHF)	1.79	940mm(94cm)
87	FOXCONN	WDAN-S1TV0950-DH	-2.44	2.4~2.4835	PIFA	i-pex(MHF)	1.81	950mm(95cm)
88	FOXCONN	WDAN-S1TV0960-DH	-2.45	2.4~2.4835	PIFA	i-pex(MHF)	1.82	960mm(96cm)
89	FOXCONN	WDAN-S1TV0970-DH	-2.47	2.4~2.4835	PIFA	i-pex(MHF)	1.84	970mm(97cm)
90	FOXCONN	WDAN-S1TV0980-DH	-2.49	2.4~2.4835	PIFA	i-pex(MHF)	1.86	980mm(98cm)
91	FOXCONN	WDAN-S1TV0990-DH	-2.51	2.4~2.4835	PIFA	i-pex(MHF)	1.88	990mm(99cm)
92	FOXCONN	WDAN-S1TV1000-DH	-2.53	2.4~2.4835	PIFA	i-pex(MHF)	1.90	1000mm(100cm)
93	FOXCONN	WDAN-S1TV1010-DH	-2.55	2.4~2.4835	PIFA	i-pex(MHF)	1.92	1010mm(101cm)

94	FOXCONN	WDAN-S1TV1020-DH	-2.57	2.4~2.4835	PIFA	i-pex(MHF)	1.94	1020mm(102cm)
95	FOXCONN	WDAN-S1TV1030-DH	-2.59	2.4~2.4835	PIFA	i-pex(MHF)	1.96	1030mm(103cm)
96	FOXCONN	WDAN-S1TV1040-DH	-2.61	2.4~2.4835	PIFA	i-pex(MHF)	1.98	1040mm(104cm)
97	FOXCONN	WDAN-S1TV1050-DH	-2.63	2.4~2.4835	PIFA	i-pex(MHF)	2.00	1050mm(105cm)
98	FOXCONN	WDAN-S1TV1060-DH	-2.64	2.4~2.4835	PIFA	i-pex(MHF)	2.01	1060mm(106cm)
99	FOXCONN	WDAN-S1TV1070-DH	-2.66	2.4~2.4835	PIFA	i-pex(MHF)	2.03	1070mm(107cm)
100	FOXCONN	WDAN-S1TV1080-DH	-2.68	2.4~2.4835	PIFA	i-pex(MHF)	2.05	1080mm(108cm)
101	FOXCONN	WDAN-S1TV1090-DH	-2.70	2.4~2.4835	PIFA	i-pex(MHF)	2.07	1090mm(109cm)
102	FOXCONN	WDAN-S1TV1100-DH	-2.72	2.4~2.4835	PIFA	i-pex(MHF)	2.09	1100mm(110cm)
103	FOXCONN	WDAN-S1TV1110-DH	-2.74	2.4~2.4835	PIFA	i-pex(MHF)	2.11	1110mm(111cm)
104	FOXCONN	WDAN-S1TV1120-DH	-2.76	2.4~2.4835	PIFA	i-pex(MHF)	2.13	1120mm(112cm)
105	FOXCONN	WDAN-S1TV1130-DH	-2.78	2.4~2.4835	PIFA	i-pex(MHF)	2.15	1130mm(113cm)
106	FOXCONN	WDAN-S1TV1140-DH	-2.80	2.4~2.4835	PIFA	i-pex(MHF)	2.17	1140mm(114cm)
107	FOXCONN	WDAN-S1TV1150-DH	-2.82	2.4~2.4835	PIFA	i-pex(MHF)	2.19	1150mm(115cm)
108	FOXCONN	WDAN-S1TV1160-DH	-2.83	2.4~2.4835	PIFA	i-pex(MHF)	2.20	1160mm(116cm)
109	FOXCONN	WDAN-S1TV1170-DH	-2.85	2.4~2.4835	PIFA	i-pex(MHF)	2.22	1170mm(117cm)
110	FOXCONN	WDAN-S1TV1180-DH	-2.87	2.4~2.4835	PIFA	i-pex(MHF)	2.24	1180mm(118cm)
111	FOXCONN	WDAN-S1TV1190-DH	-2.89	2.4~2.4835	PIFA	i-pex(MHF)	2.26	1190mm(119cm)
112	FOXCONN	WDAN-S1TV1200-DH	-2.91	2.4~2.4835	PIFA	i-pex(MHF)	2.28	1200mm(120cm)
113	FOXCONN	WDAN-S1TV1210-DH	-2.93	2.4~2.4835	PIFA	i-pex(MHF)	2.30	1210mm(121cm)
114	FOXCONN	WDAN-S1TV1220-DH	-2.95	2.4~2.4835	PIFA	i-pex(MHF)	2.32	1220mm(122cm)
115	FOXCONN	WDAN-S1TV1230-DH	-2.97	2.4~2.4835	PIFA	i-pex(MHF)	2.34	1230mm(123cm)
116	FOXCONN	WDAN-S1TV1240-DH	-2.99	2.4~2.4835	PIFA	i-pex(MHF)	2.36	1240mm(124cm)
117	FOXCONN	WDAN-S1TV1250-DH	-3.01	2.4~2.4835	PIFA	i-pex(MHF)	2.38	1250mm(125cm)
118	FOXCONN	WDAN-S1TV1260-DH	-3.02	2.4~2.4835	PIFA	i-pex(MHF)	2.39	1260mm(126cm)
119	FOXCONN	WDAN-S1TV1270-DH	-3.04	2.4~2.4835	PIFA	i-pex(MHF)	2.41	1270mm(127cm)
120	FOXCONN	WDAN-S1TV1280-DH	-3.06	2.4~2.4835	PIFA	i-pex(MHF)	2.43	1280mm(128cm)
121	FOXCONN	WDAN-S1TV1290-DH	-3.08	2.4~2.4835	PIFA	i-pex(MHF)	2.45	1290mm(129cm)

122	FOXCONN	WDAN-S1TV1300-DH	-3.10	2.4~2.4835	PIFA	i-pex(MHF)	2.47	1300mm(130cm)
123	FOXCONN	WDAN-S1TV1310-DH	-3.12	2.4~2.4835	PIFA	i-pex(MHF)	2.49	1310mm(131cm)
124	FOXCONN	WDAN-S1TV1320-DH	-3.14	2.4~2.4835	PIFA	i-pex(MHF)	2.51	1320mm(132cm)
125	FOXCONN	WDAN-S1TV1330-DH	-3.16	2.4~2.4835	PIFA	i-pex(MHF)	2.53	1330mm(133cm)
126	FOXCONN	WDAN-S1TV1340-DH	-3.18	2.4~2.4835	PIFA	i-pex(MHF)	2.55	1340mm(134cm)
127	FOXCONN	WDAN-S1TV1350-DH	-3.20	2.4~2.4835	PIFA	i-pex(MHF)	2.57	1350mm(135cm)
128	FOXCONN	WDAN-S1TV1360-DH	-3.21	2.4~2.4835	PIFA	i-pex(MHF)	2.58	1360mm(136cm)
129	FOXCONN	WDAN-S1TV1370-DH	-3.23	2.4~2.4835	PIFA	i-pex(MHF)	2.60	1370mm(137cm)
130	FOXCONN	WDAN-S1TV1380-DH	-3.25	2.4~2.4835	PIFA	i-pex(MHF)	2.62	1380mm(138cm)
131	FOXCONN	WDAN-S1TV1390-DH	-3.27	2.4~2.4835	PIFA	i-pex(MHF)	2.64	1390mm(139cm)
132	FOXCONN	WDAN-S1TV1400-DH	-3.29	2.4~2.4835	PIFA	i-pex(MHF)	2.66	1400mm(140cm)
133	FOXCONN	WDAN-S1TV1410-DH	-3.31	2.4~2.4835	PIFA	i-pex(MHF)	2.68	1410mm(141cm)
134	FOXCONN	WDAN-S1TV1420-DH	-3.33	2.4~2.4835	PIFA	i-pex(MHF)	2.70	1420mm(142cm)
135	FOXCONN	WDAN-S1TV1430-DH	-3.35	2.4~2.4835	PIFA	i-pex(MHF)	2.72	1430mm(143cm)
136	FOXCONN	WDAN-S1TV1440-DH	-3.37	2.4~2.4835	PIFA	i-pex(MHF)	2.74	1440mm(144cm)
137	FOXCONN	WDAN-S1TV1450-DH	-3.39	2.4~2.4835	PIFA	i-pex(MHF)	2.76	1450mm(145cm)
138	FOXCONN	WDAN-S1TV1460-DH	-3.40	2.4~2.4835	PIFA	i-pex(MHF)	2.77	1460mm(146cm)
139	FOXCONN	WDAN-S1TV1470-DH	-3.42	2.4~2.4835	PIFA	i-pex(MHF)	2.79	1470mm(147cm)
140	FOXCONN	WDAN-S1TV1480-DH	-3.44	2.4~2.4835	PIFA	i-pex(MHF)	2.81	1480mm(148cm)
141	FOXCONN	WDAN-S1TV1490-DH	-3.46	2.4~2.4835	PIFA	i-pex(MHF)	2.83	1490mm(149cm)
142	FOXCONN	WDAN-S1TV1500-DH	-3.48	2.4~2.4835	PIFA	i-pex(MHF)	2.85	1500mm(150cm)
143	FOXCONN	WDAN-S1TV1510-DH	-3.50	2.4~2.4835	PIFA	i-pex(MHF)	2.87	1510mm(151cm)
144	FOXCONN	WDAN-S1TV1520-DH	-3.52	2.4~2.4835	PIFA	i-pex(MHF)	2.89	1520mm(152cm)
145	FOXCONN	WDAN-S1TV1530-DH	-3.54	2.4~2.4835	PIFA	i-pex(MHF)	2.91	1530mm(153cm)
146	FOXCONN	WDAN-S1TV1540-DH	-3.56	2.4~2.4835	PIFA	i-pex(MHF)	2.93	1540mm(154cm)
147	FOXCONN	WDAN-S1TV1550-DH	-3.58	2.4~2.4835	PIFA	i-pex(MHF)	2.95	1550mm(155cm)
148	FOXCONN	WDAN-S1TV1560-DH	-3.59	2.4~2.4835	PIFA	i-pex(MHF)	2.96	1560mm(156cm)
149	FOXCONN	WDAN-S1TV1570-DH	-3.61	2.4~2.4835	PIFA	i-pex(MHF)	2.98	1570mm(157cm)

150	FOXCONN	WDAN-S1TV1580-DH	-3.63	2.4~2.4835	PIFA	i-pex(MHF)	3.00	1580mm(158cm)
151	FOXCONN	WDAN-S1TV1590-DH	-3.65	2.4~2.4835	PIFA	i-pex(MHF)	3.02	1590mm(159cm)
152	FOXCONN	WDAN-S1TV1600-DH	-3.67	2.4~2.4835	PIFA	i-pex(MHF)	3.04	1600mm(160cm)
153	FOXCONN	WDAN-S1TV1610-DH	-3.69	2.4~2.4835	PIFA	i-pex(MHF)	3.06	1610mm(161cm)
154	FOXCONN	WDAN-S1TV1620-DH	-3.71	2.4~2.4835	PIFA	i-pex(MHF)	3.08	1620mm(162cm)
155	FOXCONN	WDAN-S1TV1630-DH	-3.73	2.4~2.4835	PIFA	i-pex(MHF)	3.10	1630mm(163cm)
156	FOXCONN	WDAN-S1TV1640-DH	-3.75	2.4~2.4835	PIFA	i-pex(MHF)	3.12	1640mm(164cm)
157	FOXCONN	WDAN-S1TV1650-DH	-3.77	2.4~2.4835	PIFA	i-pex(MHF)	3.14	1650mm(165cm)
158	FOXCONN	WDAN-S1TV1660-DH	-3.78	2.4~2.4835	PIFA	i-pex(MHF)	3.15	1660mm(166cm)
159	FOXCONN	WDAN-S1TV1670-DH	-3.80	2.4~2.4835	PIFA	i-pex(MHF)	3.17	1670mm(167cm)
160	FOXCONN	WDAN-S1TV1680-DH	-3.82	2.4~2.4835	PIFA	i-pex(MHF)	3.19	1680mm(168cm)
161	FOXCONN	WDAN-S1TV1690-DH	-3.84	2.4~2.4835	PIFA	i-pex(MHF)	3.21	1690mm(169cm)
162	FOXCONN	WDAN-S1TV1700-DH	-3.86	2.4~2.4835	PIFA	i-pex(MHF)	3.23	1700mm(170cm)
163	FOXCONN	WDAN-S1TV1710-DH	-3.88	2.4~2.4835	PIFA	i-pex(MHF)	3.25	1710mm(171cm)
164	FOXCONN	WDAN-S1TV1720-DH	-3.90	2.4~2.4835	PIFA	i-pex(MHF)	3.27	1720mm(172cm)
165	FOXCONN	WDAN-S1TV1730-DH	-3.92	2.4~2.4835	PIFA	i-pex(MHF)	3.29	1730mm(173cm)
166	FOXCONN	WDAN-S1TV1740-DH	-3.94	2.4~2.4835	PIFA	i-pex(MHF)	3.31	1740mm(174cm)
167	FOXCONN	WDAN-S1TV1750-DH	-3.96	2.4~2.4835	PIFA	i-pex(MHF)	3.33	1750mm(175cm)
168	FOXCONN	WDAN-S1TV1760-DH	-3.97	2.4~2.4835	PIFA	i-pex(MHF)	3.34	1760mm(176cm)
169	FOXCONN	WDAN-S1TV1770-DH	-3.99	2.4~2.4835	PIFA	i-pex(MHF)	3.36	1770mm(177cm)
170	FOXCONN	WDAN-S1TV1780-DH	-4.01	2.4~2.4835	PIFA	i-pex(MHF)	3.38	1780mm(178cm)
171	FOXCONN	WDAN-S1TV1790-DH	-4.03	2.4~2.4835	PIFA	i-pex(MHF)	3.40	1790mm(179cm)
172	FOXCONN	WDAN-S1TV1800-DH	-4.05	2.4~2.4835	PIFA	i-pex(MHF)	3.42	1800mm(180cm)
173	FOXCONN	WDAN-S1TV2000-DH	-4.43	2.4~2.4835	PIFA	i-pex(MHF)	3.80	2000mm(200cm)
174	FOXCONN	ANTS2M1-CSG50-EF	2.58	2.4~2.4835	PIFA	i-pex(MHF)	0.25	100mm(10cm)
175	FOXCONN	ANTS2M1-CSG51-EF	2.55	2.4~2.4835	PIFA	i-pex(MHF)	0.28	110mm(11cm)
176	FOXCONN	ANTS2M1-CSG52-EF	2.53	2.4~2.4835	PIFA	i-pex(MHF)	0.31	120mm(12cm)
177	FOXCONN	ANTS2M1-CSG53-EF	2.50	2.4~2.4835	PIFA	i-pex(MHF)	0.33	130mm(13cm)
178	FOXCONN	ANTS2M1-CSG54-EF	2.48	2.4~2.4835	PIFA	i-pex(MHF)	0.36	140mm(14cm)
179	FOXCONN	ANTS2M1-CSG55-EF	2.45	2.4~2.4835	PIFA	i-pex(MHF)	0.38	150mm(15cm)

180	FOXCONN	ANTS2M1-CSG56-EF	2.43	2.4~2.4835	PIFA	i-pex(MHF)	0.41	160mm(16cm)
181	FOXCONN	ANTS2M1-CSG57-EF	2.40	2.4~2.4835	PIFA	i-pex(MHF)	0.43	170mm(17cm)
182	FOXCONN	ANTS2M1-CSG58-EF	2.38	2.4~2.4835	PIFA	i-pex(MHF)	0.46	180mm(18cm)
183	FOXCONN	ANTS2M1-CSG59-EF	2.35	2.4~2.4835	PIFA	i-pex(MHF)	0.48	190mm(19cm)
184	FOXCONN	ANTS2M1-CSG60-EF	2.33	2.4~2.4835	PIFA	i-pex(MHF)	0.51	200mm(20cm)
185	FOXCONN	ANTS2M1-CSG61-EF	2.30	2.4~2.4835	PIFA	i-pex(MHF)	0.53	210mm(21cm)
186	FOXCONN	ANTS2M1-CSG62-EF	2.27	2.4~2.4835	PIFA	i-pex(MHF)	0.56	220mm(22cm)
187	FOXCONN	ANTS2M1-CSG63-EF	2.25	2.4~2.4835	PIFA	i-pex(MHF)	0.58	230mm(23cm)
188	FOXCONN	ANTS2M1-CSG64-EF	2.22	2.4~2.4835	PIFA	i-pex(MHF)	0.61	240mm(24cm)
189	FOXCONN	ANTS2M1-CSG65-EF	2.20	2.4~2.4835	PIFA	i-pex(MHF)	0.64	250mm(25cm)
190	FOXCONN	ANTS2M1-CSG66-EF	2.17	2.4~2.4835	PIFA	i-pex(MHF)	0.66	260mm(26cm)
191	FOXCONN	ANTS2M1-CSG67-EF	2.15	2.4~2.4835	PIFA	i-pex(MHF)	0.69	270mm(27cm)
192	FOXCONN	ANTS2M1-CSG68-EF	2.12	2.4~2.4835	PIFA	i-pex(MHF)	0.71	280mm(28cm)
193	FOXCONN	ANTS2M1-CSG69-EF	2.10	2.4~2.4835	PIFA	i-pex(MHF)	0.74	290mm(29cm)
194	FOXCONN	ANTS2M1-CSG70-EF	2.07	2.4~2.4835	PIFA	i-pex(MHF)	0.76	300mm(30cm)
195	FOXCONN	ANTS2M1-CSG71-EF	2.05	2.4~2.4835	PIFA	i-pex(MHF)	0.79	310mm(31cm)
196	FOXCONN	ANTS2M1-CSG72-EF	2.02	2.4~2.4835	PIFA	i-pex(MHF)	0.81	320mm(32cm)
197	FOXCONN	ANTS2M1-CSG73-EF	2.00	2.4~2.4835	PIFA	i-pex(MHF)	0.84	330mm(33cm)
198	FOXCONN	ANTS2M1-CSG74-EF	1.97	2.4~2.4835	PIFA	i-pex(MHF)	0.86	340mm(34cm)
199	FOXCONN	ANTS2M1-CSG75-EF	1.94	2.4~2.4835	PIFA	i-pex(MHF)	0.89	350mm(35cm)
200	FOXCONN	ANTS2M1-CSG76-EF	1.92	2.4~2.4835	PIFA	i-pex(MHF)	0.92	360mm(36cm)
201	FOXCONN	ANTS2M1-CSG77-EF	1.89	2.4~2.4835	PIFA	i-pex(MHF)	0.94	370mm(37cm)
202	FOXCONN	ANTS2M1-CSG78-EF	1.87	2.4~2.4835	PIFA	i-pex(MHF)	0.97	380mm(38cm)
203	FOXCONN	ANTS2M1-CSG79-EF	1.84	2.4~2.4835	PIFA	i-pex(MHF)	0.99	390mm(39cm)
204	FOXCONN	ANTS2M1-CSG80-EF	1.82	2.4~2.4835	PIFA	i-pex(MHF)	1.02	400mm(40cm)
205	FOXCONN	ANTS2M1-CSG81-EF	1.79	2.4~2.4835	PIFA	i-pex(MHF)	1.04	410mm(41cm)
206	FOXCONN	ANTS2M1-CSG82-EF	1.77	2.4~2.4835	PIFA	i-pex(MHF)	1.07	420mm(42cm)
207	FOXCONN	ANTS2M1-CSG83-EF	1.74	2.4~2.4835	PIFA	i-pex(MHF)	1.09	430mm(43cm)
208	FOXCONN	ANTS2M1-CSG84-EF	1.72	2.4~2.4835	PIFA	i-pex(MHF)	1.12	440mm(44cm)
209	FOXCONN	ANTS2M1-CSG85-EF	1.69	2.4~2.4835	PIFA	i-pex(MHF)	1.14	450mm(45cm)
210	FOXCONN	ANTS2M1-CSG86-EF	1.66	2.4~2.4835	PIFA	i-pex(MHF)	1.17	460mm(46cm)
211	FOXCONN	ANTS2M1-CSG87-EF	1.64	2.4~2.4835	PIFA	i-pex(MHF)	1.19	470mm(47cm)
212	FOXCONN	ANTS2M1-CSG88-EF	1.61	2.4~2.4835	PIFA	i-pex(MHF)	1.22	480mm(48cm)
213	FOXCONN	ANTS2M1-CSG89-EF	1.59	2.4~2.4835	PIFA	i-pex(MHF)	1.25	490mm(49cm)
214	FOXCONN	ANTS2M1-CSG90-EF	1.56	2.4~2.4835	PIFA	i-pex(MHF)	1.27	500mm(50cm)
215	FOXCONN	ANTS2M1-CSG91-EF	1.54	2.4~2.4835	PIFA	i-pex(MHF)	1.30	510mm(51cm)
216	FOXCONN	ANTS2M1-CSG92-EF	1.51	2.4~2.4835	PIFA	i-pex(MHF)	1.32	520mm(52cm)
217	FOXCONN	ANTS2M1-CSG93-EF	1.49	2.4~2.4835	PIFA	i-pex(MHF)	1.35	530mm(53cm)
218	FOXCONN	ANTS2M1-CSG94-EF	1.46	2.4~2.4835	PIFA	i-pex(MHF)	1.37	540mm(54cm)
219	FOXCONN	ANTS2M1-CSG95-EF	1.44	2.4~2.4835	PIFA	i-pex(MHF)	1.40	550mm(55cm)
220	FOXCONN	ANTS2M1-CSG96-EF	1.41	2.4~2.4835	PIFA	i-pex(MHF)	1.42	560mm(56cm)
221	FOXCONN	ANTS2M1-CSG97-EF	1.39	2.4~2.4835	PIFA	i-pex(MHF)	1.45	570mm(57cm)
222	FOXCONN	ANTS2M1-CSG98-EF	1.37	2.4~2.4835	PIFA	i-pex(MHF)	1.46	575mm(57.5c

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223	FOXCONN	ANTS2M1-CSG99-EF	1.36	2.4~2.4835	PIFA	i-pex(MHF)	1.47	580mm(58cm)
224	FOXCONN	ANTS2M1-CSGA0-EF	1.33	2.4~2.4835	PIFA	i-pex(MHF)	1.50	590mm(59cm)
225	FOXCONN	ANTS2M1-CSGA1-EF	1.31	2.4~2.4835	PIFA	i-pex(MHF)	1.53	600mm(60cm)
226	FOXCONN	ANTS2M1-CSGA2-EF	1.28	2.4~2.4835	PIFA	i-pex(MHF)	1.55	610mm(61cm)
227	FOXCONN	ANTS2M1-CSGA3-EF	1.26	2.4~2.4835	PIFA	i-pex(MHF)	1.58	620mm(62cm)
228	FOXCONN	ANTS2M1-CSGA4-EF	1.23	2.4~2.4835	PIFA	i-pex(MHF)	1.60	630mm(63cm)
229	FOXCONN	ANTS2M1-CSGA5-EF	1.21	2.4~2.4835	PIFA	i-pex(MHF)	1.63	640mm(64cm)
230	FOXCONN	ANTS2M1-CSGA6-EF	1.18	2.4~2.4835	PIFA	i-pex(MHF)	1.65	650mm(65cm)
231	FOXCONN	ANTS2M1-CSGA7-EF	1.16	2.4~2.4835	PIFA	i-pex(MHF)	1.68	660mm(66cm)
232	FOXCONN	ANTS2M1-CSGA8-EF	1.13	2.4~2.4835	PIFA	i-pex(MHF)	1.70	670mm(67cm)
233	FOXCONN	ANTS2M1-CSGA9-EF	1.11	2.4~2.4835	PIFA	i-pex(MHF)	1.73	680mm(68cm)
234	FOXCONN	ANTS2M1-CSGB0-EF	1.08	2.4~2.4835	PIFA	i-pex(MHF)	1.75	690mm(69cm)
235	FOXCONN	ANTS2M1-CSGB1-EF	1.05	2.4~2.4835	PIFA	i-pex(MHF)	1.78	700mm(70cm)
236	FOXCONN	ANTS2M1-CSGB2-EF	1.03	2.4~2.4835	PIFA	i-pex(MHF)	1.80	710mm(71cm)
237	FOXCONN	ANTS2M1-CSGB3-EF	1.00	2.4~2.4835	PIFA	i-pex(MHF)	1.83	720mm(72cm)
238	FOXCONN	ANTS2M1-CSGB4-EF	0.98	2.4~2.4835	PIFA	i-pex(MHF)	1.86	730mm(73cm)
239	FOXCONN	ANTS2M1-CSGB5-EF	0.95	2.4~2.4835	PIFA	i-pex(MHF)	1.88	740mm(74cm)
240	FOXCONN	ANTS2M1-CSGB6-EF	0.93	2.4~2.4835	PIFA	i-pex(MHF)	1.91	750mm(75cm)
241	FOXCONN	ANTS2M1-CSGB7-EF	0.90	2.4~2.4835	PIFA	i-pex(MHF)	1.93	760mm(76cm)
242	FOXCONN	ANTS2M1-CSGB8-EF	0.88	2.4~2.4835	PIFA	i-pex(MHF)	1.96	770mm(77cm)
243	FOXCONN	ANTS2M1-CSGB9-EF	0.85	2.4~2.4835	PIFA	i-pex(MHF)	1.98	780mm(78cm)
244	FOXCONN	ANTS2M1-CSGC0-EF	0.83	2.4~2.4835	PIFA	i-pex(MHF)	2.01	790mm(79cm)
245	FOXCONN	ANTS2M1-CSGC1-EF	0.80	2.4~2.4835	PIFA	i-pex(MHF)	2.03	800mm(80cm)
246	FOXCONN	ANTS2M1-CSGC2-EF	0.78	2.4~2.4835	PIFA	i-pex(MHF)	2.06	810mm(81cm)
247	FOXCONN	ANTS2M1-CSGC3-EF	0.75	2.4~2.4835	PIFA	i-pex(MHF)	2.08	820mm(82cm)
248	FOXCONN	ANTS2M1-CSGC4-EF	0.72	2.4~2.4835	PIFA	i-pex(MHF)	2.11	830mm(83cm)
249	FOXCONN	ANTS2M1-CSGC5-EF	0.70	2.4~2.4835	PIFA	i-pex(MHF)	2.14	840mm(84cm)
250	FOXCONN	ANTS2M1-CSGC6-EF	0.67	2.4~2.4835	PIFA	i-pex(MHF)	2.16	850mm(85cm)
251	FOXCONN	ANTS2M1-CSGC7-EF	0.65	2.4~2.4835	PIFA	i-pex(MHF)	2.19	860mm(86cm)
252	FOXCONN	ANTS2M1-CSGC8-EF	0.62	2.4~2.4835	PIFA	i-pex(MHF)	2.21	870mm(87cm)
253	FOXCONN	ANTS2M1-CSGC9-EF	0.60	2.4~2.4835	PIFA	i-pex(MHF)	2.24	880mm(88cm)
254	FOXCONN	ANTS2M1-CSGD0-EF	0.57	2.4~2.4835	PIFA	i-pex(MHF)	2.26	890mm(89cm)
255	FOXCONN	ANTS2M1-CSGD1-EF	0.55	2.4~2.4835	PIFA	i-pex(MHF)	2.29	900mm(90cm)
256	FOXCONN	ANTS2M1-CSGD2-EF	0.52	2.4~2.4835	PIFA	i-pex(MHF)	2.31	910mm(91cm)
257	FOXCONN	ANTS2M1-CSGD3-EF	0.50	2.4~2.4835	PIFA	i-pex(MHF)	2.34	920mm(92cm)
258	FOXCONN	ANTS2M1-CSGD4-EF	0.47	2.4~2.4835	PIFA	i-pex(MHF)	2.36	930mm(93cm)
259	FOXCONN	ANTS2M1-CSGD5-EF	0.44	2.4~2.4835	PIFA	i-pex(MHF)	2.39	940mm(94cm)
260	FOXCONN	ANTS2M1-CSGD6-EF	0.42	2.4~2.4835	PIFA	i-pex(MHF)	2.42	950mm(95cm)
261	FOXCONN	ANTS2M1-CSGD7-EF	0.39	2.4~2.4835	PIFA	i-pex(MHF)	2.44	960mm(96cm)
262	FOXCONN	ANTS2M1-CSGD8-EF	0.37	2.4~2.4835	PIFA	i-pex(MHF)	2.47	970mm(97cm)
263	FOXCONN	ANTS2M1-CSGD9-EF	0.34	2.4~2.4835	PIFA	i-pex(MHF)	2.49	980mm(98cm)
264	FOXCONN	ANTS2M1-CSGE0-EF	0.32	2.4~2.4835	PIFA	i-pex(MHF)	2.52	990mm(99cm)

265	FOXCONN	ANTS2M1-CSGE1-EF	0.29	2.4~2.4835	PIFA	i-pex(MHF)	2.54	1000mm(100cm)
266	FOXCONN	ANTS2M1-CSGE2-EF	0.27	2.4~2.4835	PIFA	i-pex(MHF)	2.57	1010mm(101cm)
267	FOXCONN	ANTS2M1-CSGE3-EF	0.24	2.4~2.4835	PIFA	i-pex(MHF)	2.59	1020mm(102cm)
268	FOXCONN	ANTS2M1-CSGE4-EF	0.22	2.4~2.4835	PIFA	i-pex(MHF)	2.62	1030mm(103cm)
269	FOXCONN	ANTS2M1-CSGE5-EF	0.19	2.4~2.4835	PIFA	i-pex(MHF)	2.64	1040mm(104cm)
270	FOXCONN	ANTS2M1-CSGE6-EF	0.17	2.4~2.4835	PIFA	i-pex(MHF)	2.67	1050mm(105cm)
271	FOXCONN	ANTS2M1-CSGE7-EF	0.14	2.4~2.4835	PIFA	i-pex(MHF)	2.69	1060mm(106cm)
272	FOXCONN	ANTS2M1-CSGE8-EF	0.11	2.4~2.4835	PIFA	i-pex(MHF)	2.72	1070mm(107cm)
273	FOXCONN	ANTS2M1-CSGE9-EF	0.09	2.4~2.4835	PIFA	i-pex(MHF)	2.75	1080mm(108cm)
274	FOXCONN	ANTS2M1-CSGF0-EF	0.06	2.4~2.4835	PIFA	i-pex(MHF)	2.77	1090mm(109cm)
275	FOXCONN	ANTS2M1-CSGF1-EF	0.04	2.4~2.4835	PIFA	i-pex(MHF)	2.80	1100mm(110cm)
276	FOXCONN	ANTS2M1-CSGF2-EF	0.01	2.4~2.4835	PIFA	i-pex(MHF)	2.82	1110mm(111cm)
277	FOXCONN	ANTS2M1-CSGF3-EF	-0.01	2.4~2.4835	PIFA	i-pex(MHF)	2.85	1120mm(112cm)
278	FOXCONN	ANTS2M1-CSGF4-EF	-0.04	2.4~2.4835	PIFA	i-pex(MHF)	2.87	1130mm(113cm)
279	FOXCONN	ANTS2M1-CSGF5-EF	-0.06	2.4~2.4835	PIFA	i-pex(MHF)	2.90	1140mm(114cm)
280	FOXCONN	ANTS2M1-CSGF6-EF	-0.09	2.4~2.4835	PIFA	i-pex(MHF)	2.92	1150mm(115cm)
281	FOXCONN	ANTS2M1-CSGF7-EF	-0.11	2.4~2.4835	PIFA	i-pex(MHF)	2.95	1160mm(116cm)
282	FOXCONN	ANTS2M1-CSGF8-EF	-0.14	2.4~2.4835	PIFA	i-pex(MHF)	2.97	1170mm(117cm)
283	FOXCONN	ANTS2M1-CSGF9-EF	-0.17	2.4~2.4835	PIFA	i-pex(MHF)	3.00	1180mm(118cm)
284	FOXCONN	ANTS2M1-CSGG0-EF	-0.19	2.4~2.4835	PIFA	i-pex(MHF)	3.03	1190mm(119cm)
285	FOXCONN	ANTS2M1-CSGG1-EF	-0.22	2.4~2.4835	PIFA	i-pex(MHF)	3.05	1200mm(120cm)
286	FOXCONN	ANTS2M1-CSGG2-EF	-0.24	2.4~2.4835	PIFA	i-pex(MHF)	3.08	1210mm(121cm)
287	FOXCONN	ANTS2M1-CSGG3-EF	-0.27	2.4~2.4835	PIFA	i-pex(MHF)	3.10	1220mm(122cm)
288	FOXCONN	ANTS2M1-CSGG4-EF	-0.29	2.4~2.4835	PIFA	i-pex(MHF)	3.13	1230mm(123cm)
289	FOXCONN	ANTS2M1-CSGG5-EF	-0.32	2.4~2.4835	PIFA	i-pex(MHF)	3.15	1240mm(124cm)
290	FOXCONN	ANTS2M1-CSGG6-EF	-0.34	2.4~2.4835	PIFA	i-pex(MHF)	3.18	1250mm(125cm)
291	FOXCONN	ANTS2M1-CSGG7-EF	-0.37	2.4~2.4835	PIFA	i-pex(MHF)	3.20	1260mm(126cm)
292	FOXCONN	ANTS2M1-CSGG8-EF	-0.39	2.4~2.4835	PIFA	i-pex(MHF)	3.23	1270mm(127cm)

293	FOXCONN	ANTS2M1-CSGG9-EF	-0.42	2.4~2.4835	PIFA	i-pex(MHF)	3.25	1280mm(128cm)
294	FOXCONN	ANTS2M1-CSGH0-EF	-0.45	2.4~2.4835	PIFA	i-pex(MHF)	3.28	1290mm(129cm)
295	FOXCONN	ANTS2M1-CSGH1-EF	-0.47	2.4~2.4835	PIFA	i-pex(MHF)	3.30	1300mm(130cm)
296	FOXCONN	ANTS2M1-CSGH2-EF	-0.50	2.4~2.4835	PIFA	i-pex(MHF)	3.33	1310mm(131cm)
297	FOXCONN	ANTS2M1-CSGH3-EF	-0.52	2.4~2.4835	PIFA	i-pex(MHF)	3.36	1320mm(132cm)
298	FOXCONN	ANTS2M1-CSGH4-EF	-0.55	2.4~2.4835	PIFA	i-pex(MHF)	3.38	1330mm(133cm)
299	FOXCONN	ANTS2M1-CSGH5-EF	-0.57	2.4~2.4835	PIFA	i-pex(MHF)	3.41	1340mm(134cm)
300	FOXCONN	ANTS2M1-CSGH6-EF	-0.60	2.4~2.4835	PIFA	i-pex(MHF)	3.43	1350mm(135cm)
301	FOXCONN	ANTS2M1-CSGH7-EF	-0.62	2.4~2.4835	PIFA	i-pex(MHF)	3.46	1360mm(136cm)
302	FOXCONN	ANTS2M1-CSGH8-EF	-0.65	2.4~2.4835	PIFA	i-pex(MHF)	3.48	1370mm(137cm)
303	FOXCONN	ANTS2M1-CSGH9-EF	-0.67	2.4~2.4835	PIFA	i-pex(MHF)	3.51	1380mm(138cm)
304	FOXCONN	ANTS2M1-CSGN0-EF	-0.70	2.4~2.4835	PIFA	i-pex(MHF)	3.53	1390mm(139cm)
305	FOXCONN	ANTS2M1-CSGN1-EF	-0.72	2.4~2.4835	PIFA	i-pex(MHF)	3.56	1400mm(140cm)
306	FOXCONN	ANTS2M1-CSGN2-EF	-0.75	2.4~2.4835	PIFA	i-pex(MHF)	3.58	1410mm(141cm)
307	FOXCONN	ANTS2M1-CSGN3-EF	-0.78	2.4~2.4835	PIFA	i-pex(MHF)	3.61	1420mm(142cm)
308	FOXCONN	ANTS2M1-CSGN4-EF	-0.80	2.4~2.4835	PIFA	i-pex(MHF)	3.64	1430mm(143cm)
309	FOXCONN	ANTS2M1-CSGN5-EF	-0.83	2.4~2.4835	PIFA	i-pex(MHF)	3.66	1440mm(144cm)
310	FOXCONN	ANTS2M1-CSGN6-EF	-0.85	2.4~2.4835	PIFA	i-pex(MHF)	3.69	1450mm(145cm)
311	FOXCONN	ANTS2M1-CSGN7-EF	-0.88	2.4~2.4835	PIFA	i-pex(MHF)	3.71	1460mm(146cm)
312	FOXCONN	ANTS2M1-CSGN8-EF	-0.90	2.4~2.4835	PIFA	i-pex(MHF)	3.74	1470mm(147cm)
313	FOXCONN	ANTS2M1-CSGN9-EF	-0.93	2.4~2.4835	PIFA	i-pex(MHF)	3.76	1480mm(148cm)
314	FOXCONN	ANTS2M1-CSGJ0-EF	-0.95	2.4~2.4835	PIFA	i-pex(MHF)	3.79	1490mm(149cm)
315	FOXCONN	ANTS2M1-CSGJ1-EF	-0.98	2.4~2.4835	PIFA	i-pex(MHF)	3.81	1500mm(150cm)
316	FOXCONN	ANTS2M1-CSGJ2-EF	-1.00	2.4~2.4835	PIFA	i-pex(MHF)	3.84	1510mm(151cm)
317	FOXCONN	ANTS2M1-CSGJ3-EF	-1.03	2.4~2.4835	PIFA	i-pex(MHF)	3.86	1520mm(152cm)
318	FOXCONN	ANTS2M1-CSGJ4-EF	-1.06	2.4~2.4835	PIFA	i-pex(MHF)	3.89	1530mm(153cm)
319	FOXCONN	ANTS2M1-CSGJ5-EF	-1.08	2.4~2.4835	PIFA	i-pex(MHF)	3.91	1540mm(154cm)
320	FOXCONN	ANTS2M1-CSGJ6-EF	-1.11	2.4~2.4835	PIFA	i-pex(MHF)	3.94	1550mm(155cm)

321	FOXCONN	ANTS2M1-CSGJ7-EF	-1.13	2.4~2.4835	PIFA	i-pex(MHF)	3.97	1560mm(156cm)
322	FOXCONN	ANTS2M1-CSGJ8-EF	-1.16	2.4~2.4835	PIFA	i-pex(MHF)	3.99	1570mm(157cm)
323	FOXCONN	ANTS2M1-CSGJ9-EF	-1.18	2.4~2.4835	PIFA	i-pex(MHF)	4.02	1580mm(158cm)
324	FOXCONN	ANTS2M1-CSGK0-EF	-1.21	2.4~2.4835	PIFA	i-pex(MHF)	4.04	1590mm(159cm)
325	FOXCONN	ANTS2M1-CSGK1-EF	-1.23	2.4~2.4835	PIFA	i-pex(MHF)	4.07	1600mm(160cm)
326	FOXCONN	ANTS2M1-CSGK2-EF	-1.26	2.4~2.4835	PIFA	i-pex(MHF)	4.09	1610mm(161cm)
327	FOXCONN	ANTS2M1-CSGK3-EF	-1.28	2.4~2.4835	PIFA	i-pex(MHF)	4.12	1620mm(162cm)
328	FOXCONN	ANTS2M1-CSGK4-EF	-1.31	2.4~2.4835	PIFA	i-pex(MHF)	4.14	1630mm(163cm)
329	FOXCONN	ANTS2M1-CSGK5-EF	-1.33	2.4~2.4835	PIFA	i-pex(MHF)	4.17	1640mm(164cm)
330	FOXCONN	ANTS2M1-CSGK6-EF	-1.36	2.4~2.4835	PIFA	i-pex(MHF)	4.19	1650mm(165cm)
331	FOXCONN	ANTS2M1-CSGK7-EF	-1.39	2.4~2.4835	PIFA	i-pex(MHF)	4.22	1660mm(166cm)
332	FOXCONN	ANTS2M1-CSGK8-EF	-1.41	2.4~2.4835	PIFA	i-pex(MHF)	4.25	1670mm(167cm)
333	FOXCONN	ANTS2M1-CSGK9-EF	-1.44	2.4~2.4835	PIFA	i-pex(MHF)	4.27	1680mm(168cm)
334	FOXCONN	ANTS2M1-CSGL0-EF	-1.46	2.4~2.4835	PIFA	i-pex(MHF)	4.30	1690mm(169cm)
335	FOXCONN	ANTS2M1-CSGL1-EF	-1.49	2.4~2.4835	PIFA	i-pex(MHF)	4.32	1700mm(170cm)
336	FOXCONN	ANTS2M1-CSGL2-EF	-1.51	2.4~2.4835	PIFA	i-pex(MHF)	4.35	1710mm(171cm)
337	FOXCONN	ANTS2M1-CSGL3-EF	-1.54	2.4~2.4835	PIFA	i-pex(MHF)	4.37	1720mm(172cm)
338	FOXCONN	ANTS2M1-CSGL4-EF	-1.56	2.4~2.4835	PIFA	i-pex(MHF)	4.40	1730mm(173cm)
339	FOXCONN	ANTS2M1-CSGL5-EF	-1.59	2.4~2.4835	PIFA	i-pex(MHF)	4.42	1740mm(174cm)
340	FOXCONN	ANTS2M1-CSGL6-EF	-1.61	2.4~2.4835	PIFA	i-pex(MHF)	4.45	1750mm(175cm)
341	FOXCONN	ANTS2M1-CSGL7-EF	-1.64	2.4~2.4835	PIFA	i-pex(MHF)	4.47	1760mm(176cm)
342	FOXCONN	ANTS2M1-CSGL8-EF	-1.67	2.4~2.4835	PIFA	i-pex(MHF)	4.50	1770mm(177cm)
343	FOXCONN	ANTS2M1-CSGL9-EF	-1.69	2.4~2.4835	PIFA	i-pex(MHF)	4.52	1780mm(178cm)
344	FOXCONN	ANTS2M1-CSGM0-EF	-1.72	2.4~2.4835	PIFA	i-pex(MHF)	4.55	1790mm(179cm)
345	FOXCONN	ANTS2M1-CSGM1-EF	-1.74	2.4~2.4835	PIFA	i-pex(MHF)	4.58	1800mm(180cm)
346	FOXCONN	ANTS2M1-CSGM2-EF	-2.25	2.4~2.4835	PIFA	i-pex(MHF)	5.08	2000mm(200cm)
347	SAA	SN6506-11-010-C	-2.92	2.4~2.4835	PIFA	i-pex(MHF)	0.50	100mm(10cm)
348	SAA	SN6506-11-011-C	-2.95	2.4~2.4835	PIFA	i-pex(MHF)	0.53	110mm(11cm)
349	SAA	SN6506-11-012-C	-2.97	2.4~2.4835	PIFA	i-pex(MHF)	0.55	120mm(12cm)

350	SAA	SN6506-11-013-C	-3.00	2.4~2.4835	PIFA	i-pex(MHF)	0.58	130mm(13cm)
351	SAA	SN6506-11-014-C	-3.03	2.4~2.4835	PIFA	i-pex(MHF)	0.61	140mm(14cm)
352	SAA	SN6506-11-015-C	-3.05	2.4~2.4835	PIFA	i-pex(MHF)	0.63	150mm(15cm)
353	SAA	SN6506-11-016-C	-3.08	2.4~2.4835	PIFA	i-pex(MHF)	0.66	160mm(16cm)
354	SAA	SN6506-11-017-C	-3.11	2.4~2.4835	PIFA	i-pex(MHF)	0.69	170mm(17cm)
355	SAA	SN6506-11-018-C	-3.13	2.4~2.4835	PIFA	i-pex(MHF)	0.71	180mm(18cm)
356	SAA	SN6506-11-019-C	-3.16	2.4~2.4835	PIFA	i-pex(MHF)	0.74	190mm(19cm)
357	SAA	SN6506-11-020-C	-3.19	2.4~2.4835	PIFA	i-pex(MHF)	0.77	200mm(20cm)
358	SAA	SN6506-11-021-C	-3.21	2.4~2.4835	PIFA	i-pex(MHF)	0.79	210mm(21cm)
359	SAA	SN6506-11-022-C	-3.24	2.4~2.4835	PIFA	i-pex(MHF)	0.82	220mm(22cm)
360	SAA	SN6506-11-023-C	-3.27	2.4~2.4835	PIFA	i-pex(MHF)	0.85	230mm(23cm)
361	SAA	SN6506-11-024-C	-3.29	2.4~2.4835	PIFA	i-pex(MHF)	0.87	240mm(24cm)
362	SAA	SN6506-11-025-C	-3.32	2.4~2.4835	PIFA	i-pex(MHF)	0.90	250mm(25cm)
363	SAA	SN6506-11-026-C	-3.35	2.4~2.4835	PIFA	i-pex(MHF)	0.93	260mm(26cm)
364	SAA	SN6506-11-027-C	-3.37	2.4~2.4835	PIFA	i-pex(MHF)	0.95	270mm(27cm)
365	SAA	SN6506-11-028-C	-3.40	2.4~2.4835	PIFA	i-pex(MHF)	0.98	280mm(28cm)
366	SAA	SN6506-11-029-C	-3.43	2.4~2.4835	PIFA	i-pex(MHF)	1.01	290mm(29cm)
367	SAA	SN6506-11-030-C	-3.48	2.4~2.4835	PIFA	i-pex(MHF)	1.06	300mm(30cm)
368	SAA	SN6506-11-031-C	-3.50	2.4~2.4835	PIFA	i-pex(MHF)	1.08	310mm(31cm)
369	SAA	SN6506-11-032-C	-3.53	2.4~2.4835	PIFA	i-pex(MHF)	1.11	320mm(32cm)
370	SAA	SN6506-11-033-C	-3.56	2.4~2.4835	PIFA	i-pex(MHF)	1.14	330mm(33cm)
371	SAA	SN6506-11-034-C	-3.58	2.4~2.4835	PIFA	i-pex(MHF)	1.16	340mm(34cm)
372	SAA	SN6506-11-035-C	-3.61	2.4~2.4835	PIFA	i-pex(MHF)	1.19	350mm(35cm)
373	SAA	SN6506-11-036-C	-3.63	2.4~2.4835	PIFA	i-pex(MHF)	1.21	360mm(36cm)
374	SAA	SN6506-11-037-C	-3.66	2.4~2.4835	PIFA	i-pex(MHF)	1.24	370mm(37cm)
375	SAA	SN6506-11-038-C	-3.69	2.4~2.4835	PIFA	i-pex(MHF)	1.27	380mm(38cm)
376	SAA	SN6506-11-039-C	-3.71	2.4~2.4835	PIFA	i-pex(MHF)	1.29	390mm(39cm)
377	SAA	SN6506-11-040-C	-3.74	2.4~2.4835	PIFA	i-pex(MHF)	1.32	400mm(40cm)
378	SAA	SN6506-11-041-C	-3.77	2.4~2.4835	PIFA	i-pex(MHF)	1.35	410mm(41cm)
379	SAA	SN6506-11-042-C	-3.79	2.4~2.4835	PIFA	i-pex(MHF)	1.37	420mm(42cm)
380	SAA	SN6506-11-043-C	-3.82	2.4~2.4835	PIFA	i-pex(MHF)	1.40	430mm(43cm)
381	SAA	SN6506-11-044-C	-3.85	2.4~2.4835	PIFA	i-pex(MHF)	1.43	440mm(44cm)
382	SAA	SN6506-11-045-C	-3.87	2.4~2.4835	PIFA	i-pex(MHF)	1.45	450mm(45cm)
383	SAA	SN6506-11-046-C	-3.90	2.4~2.4835	PIFA	i-pex(MHF)	1.48	460mm(46cm)
384	SAA	SN6506-11-047-C	-3.92	2.4~2.4835	PIFA	i-pex(MHF)	1.50	470mm(47cm)
385	SAA	SN6506-11-048-C	-3.95	2.4~2.4835	PIFA	i-pex(MHF)	1.53	480mm(48cm)
386	SAA	SN6506-11-049-C	-3.98	2.4~2.4835	PIFA	i-pex(MHF)	1.56	490mm(49cm)
387	SAA	SN6506-11-050-C	-4.00	2.4~2.4835	PIFA	i-pex(MHF)	1.58	500mm(50cm)
388	SAA	SN6506-11-051-C	-4.03	2.4~2.4835	PIFA	i-pex(MHF)	1.61	510mm(51cm)
389	SAA	SN6506-11-052-C	-4.06	2.4~2.4835	PIFA	i-pex(MHF)	1.64	520mm(52cm)
390	SAA	SN6506-11-053-C	-4.08	2.4~2.4835	PIFA	i-pex(MHF)	1.66	530mm(53cm)
391	SAA	SN6506-11-054-C	-4.11	2.4~2.4835	PIFA	i-pex(MHF)	1.69	540mm(54cm)
392	SAA	SN6506-11-055-C	-4.13	2.4~2.4835	PIFA	i-pex(MHF)	1.71	550mm(55cm)

393	SAA	SN6506-11-056-C	-4.16	2.4~2.4835	PIFA	i-pex(MHF)	1.74	560mm(56cm)
394	SAA	SN6506-11-057-C	-4.19	2.4~2.4835	PIFA	i-pex(MHF)	1.77	575mm(57.5cm)
395	SAA	SN6506-11-058-C	-4.21	2.4~2.4835	PIFA	i-pex(MHF)	1.79	580mm(58cm)
396	SAA	SN6506-11-059-C	-4.24	2.4~2.4835	PIFA	i-pex(MHF)	1.82	590mm(59cm)
397	SAA	SN6506-11-060-C	-4.27	2.4~2.4835	PIFA	i-pex(MHF)	1.85	600mm(60cm)
398	SAA	SN6506-11-061-C	-4.29	2.4~2.4835	PIFA	i-pex(MHF)	1.87	610mm(61cm)
399	SAA	SN6506-11-062-C	-4.32	2.4~2.4835	PIFA	i-pex(MHF)	1.90	620mm(62cm)
400	SAA	SN6506-11-063-C	-4.35	2.4~2.4835	PIFA	i-pex(MHF)	1.93	630mm(63cm)
401	SAA	SN6506-11-064-C	-4.37	2.4~2.4835	PIFA	i-pex(MHF)	1.95	640mm(64cm)
402	SAA	SN6506-11-065-C	-4.40	2.4~2.4835	PIFA	i-pex(MHF)	1.98	650mm(65cm)
403	SAA	SN6506-11-066-C	-4.42	2.4~2.4835	PIFA	i-pex(MHF)	2.00	660mm(66cm)
404	SAA	SN6506-11-067-C	-4.45	2.4~2.4835	PIFA	i-pex(MHF)	2.03	670mm(67cm)
405	SAA	SN6506-11-068-C	-4.48	2.4~2.4835	PIFA	i-pex(MHF)	2.06	680mm(68cm)
406	SAA	SN6506-11-069-C	-4.50	2.4~2.4835	PIFA	i-pex(MHF)	2.08	690mm(69cm)
407	SAA	SN6506-11-070-C	-4.53	2.4~2.4835	PIFA	i-pex(MHF)	2.11	700mm(70cm)
408	SAA	SN6506-11-071-C	-4.56	2.4~2.4835	PIFA	i-pex(MHF)	2.14	710mm(71cm)
409	SAA	SN6506-11-072-C	-4.58	2.4~2.4835	PIFA	i-pex(MHF)	2.16	720mm(72cm)
410	SAA	SN6506-11-073-C	-4.61	2.4~2.4835	PIFA	i-pex(MHF)	2.19	730mm(73cm)
411	SAA	SN6506-11-074-C	-4.63	2.4~2.4835	PIFA	i-pex(MHF)	2.21	740mm(74cm)
412	SAA	SN6506-11-075-C	-4.66	2.4~2.4835	PIFA	i-pex(MHF)	2.24	750mm(75cm)
413	SAA	SN6506-11-076-C	-4.69	2.4~2.4835	PIFA	i-pex(MHF)	2.27	760mm(76cm)
414	SAA	SN6506-11-077-C	-4.71	2.4~2.4835	PIFA	i-pex(MHF)	2.29	770mm(77cm)
415	SAA	SN6506-11-078-C	-4.74	2.4~2.4835	PIFA	i-pex(MHF)	2.32	780mm(78cm)
416	SAA	SN6506-11-079-C	-4.77	2.4~2.4835	PIFA	i-pex(MHF)	2.35	790mm(79cm)
417	SAA	SN6506-11-080-C	-4.79	2.4~2.4835	PIFA	i-pex(MHF)	2.37	800mm(80cm)
418	SAA	SN6506-11-081-C	-4.82	2.4~2.4835	PIFA	i-pex(MHF)	2.40	810mm(81cm)
419	SAA	SN6506-11-082-C	-4.85	2.4~2.4835	PIFA	i-pex(MHF)	2.43	820mm(82cm)
420	SAA	SN6506-11-083-C	-4.87	2.4~2.4835	PIFA	i-pex(MHF)	2.45	830mm(83cm)
421	SAA	SN6506-11-084-C	-4.90	2.4~2.4835	PIFA	i-pex(MHF)	2.48	840mm(84cm)
422	SAA	SN6506-11-085-C	-4.92	2.4~2.4835	PIFA	i-pex(MHF)	2.50	850mm(85cm)
423	SAA	SN6506-11-086-C	-4.95	2.4~2.4835	PIFA	i-pex(MHF)	2.53	860mm(86cm)
424	SAA	SN6506-11-087-C	-4.98	2.4~2.4835	PIFA	i-pex(MHF)	2.56	870mm(87cm)
425	SAA	SN6506-11-088-C	-5.00	2.4~2.4835	PIFA	i-pex(MHF)	2.58	880mm(88cm)
426	SAA	SN6506-11-089-C	-5.03	2.4~2.4835	PIFA	i-pex(MHF)	2.61	890mm(89cm)
427	SAA	SN6506-11-090-C	-5.06	2.4~2.4835	PIFA	i-pex(MHF)	2.64	900mm(90cm)
428	SAA	SN6506-11-091-C	-5.08	2.4~2.4835	PIFA	i-pex(MHF)	2.66	910mm(91cm)
429	SAA	SN6506-11-092-C	-5.11	2.4~2.4835	PIFA	i-pex(MHF)	2.69	920mm(92cm)
430	SAA	SN6506-11-093-C	-5.13	2.4~2.4835	PIFA	i-pex(MHF)	2.71	930mm(93cm)
431	SAA	SN6506-11-094-C	-5.16	2.4~2.4835	PIFA	i-pex(MHF)	2.74	940mm(94cm)
432	SAA	SN6506-11-095-C	-5.19	2.4~2.4835	PIFA	i-pex(MHF)	2.77	950mm(95cm)
433	SAA	SN6506-11-096-C	-5.21	2.4~2.4835	PIFA	i-pex(MHF)	2.79	960mm(96cm)
434	SAA	SN6506-11-097-C	-5.24	2.4~2.4835	PIFA	i-pex(MHF)	2.82	970mm(97cm)

435	SAA	SN6506-11-098-C	-5.27	2.4~2.4835	PIFA	i-pex(MHF)	2.85	980mm(98cm)
436	SAA	SN6506-11-099-C	-5.29	2.4~2.4835	PIFA	i-pex(MHF)	2.87	990mm(99cm)
437	SAA	SN6506-11-100-C	-5.32	2.4~2.4835	PIFA	i-pex(MHF)	2.90	1000mm(100cm)
438	SAA	SN6506-11-101-C	-5.35	2.4~2.4835	PIFA	i-pex(MHF)	2.93	1010mm(101cm)
439	SAA	SN6506-11-102-C	-5.37	2.4~2.4835	PIFA	i-pex(MHF)	2.95	1020mm(102cm)
440	SAA	SN6506-11-103-C	-5.40	2.4~2.4835	PIFA	i-pex(MHF)	2.98	1030mm(103cm)
441	SAA	SN6506-11-104-C	-5.42	2.4~2.4835	PIFA	i-pex(MHF)	3.00	1040mm(104cm)
442	SAA	SN6506-11-105-C	-5.45	2.4~2.4835	PIFA	i-pex(MHF)	3.03	1050mm(105cm)
443	SAA	SN6506-11-106-C	-5.48	2.4~2.4835	PIFA	i-pex(MHF)	3.06	1060mm(106cm)
444	SAA	SN6506-11-107-C	-5.50	2.4~2.4835	PIFA	i-pex(MHF)	3.08	1070mm(107cm)
445	SAA	SN6506-11-108-C	-5.53	2.4~2.4835	PIFA	i-pex(MHF)	3.11	1080mm(108cm)
446	SAA	SN6506-11-109-C	-5.56	2.4~2.4835	PIFA	i-pex(MHF)	3.14	1090mm(109cm)
447	SAA	SN6506-11-110-C	-5.58	2.4~2.4835	PIFA	i-pex(MHF)	3.16	1100mm(110cm)
448	SAA	SN6506-11-111-C	-5.61	2.4~2.4835	PIFA	i-pex(MHF)	3.19	1110mm(111cm)
449	SAA	SN6506-11-112-C	-5.63	2.4~2.4835	PIFA	i-pex(MHF)	3.21	1120mm(112cm)
450	SAA	SN6506-11-113-C	-5.66	2.4~2.4835	PIFA	i-pex(MHF)	3.24	1130mm(113cm)
451	SAA	SN6506-11-114-C	-5.69	2.4~2.4835	PIFA	i-pex(MHF)	3.27	1140mm(114cm)
452	SAA	SN6506-11-115-C	-5.71	2.4~2.4835	PIFA	i-pex(MHF)	3.29	1150mm(115cm)
453	SAA	SN6506-11-116-C	-5.74	2.4~2.4835	PIFA	i-pex(MHF)	3.32	1160mm(116cm)
454	SAA	SN6506-11-117-C	-5.77	2.4~2.4835	PIFA	i-pex(MHF)	3.35	1170mm(117cm)
455	SAA	SN6506-11-118-C	-5.79	2.4~2.4835	PIFA	i-pex(MHF)	3.37	1180mm(118cm)
456	SAA	SN6506-11-119-C	-5.82	2.4~2.4835	PIFA	i-pex(MHF)	3.40	1190mm(119cm)
457	SAA	SN6506-11-120-C	-5.85	2.4~2.4835	PIFA	i-pex(MHF)	3.43	1200mm(120cm)
458	SAA	SN6506-11-121-C	-5.87	2.4~2.4835	PIFA	i-pex(MHF)	3.45	1210mm(121cm)
459	SAA	SN6506-11-122-C	-5.90	2.4~2.4835	PIFA	i-pex(MHF)	3.48	1220mm(122cm)
460	SAA	SN6506-11-123-C	-5.92	2.4~2.4835	PIFA	i-pex(MHF)	3.50	1230mm(123cm)
461	SAA	SN6506-11-124-C	-5.95	2.4~2.4835	PIFA	i-pex(MHF)	3.53	1240mm(124cm)
462	SAA	SN6506-11-125-C	-5.98	2.4~2.4835	PIFA	i-pex(MHF)	3.56	1250mm(125cm)
463	SAA	SN6506-11-126-C	-6.00	2.4~2.4835	PIFA	i-pex(MHF)	3.58	1260mm(126cm)

464	SAA	SN6506-11-127-C	-6.03	2.4~2.4835	PIFA	i-pex(MHF)	3.61	1270mm(127cm)
465	SAA	SN6506-11-128-C	-6.06	2.4~2.4835	PIFA	i-pex(MHF)	3.64	1280mm(128cm)
466	SAA	SN6506-11-129-C	-6.08	2.4~2.4835	PIFA	i-pex(MHF)	3.66	1290mm(129cm)
467	SAA	SN6506-11-130-C	-6.11	2.4~2.4835	PIFA	i-pex(MHF)	3.69	1300mm(130cm)
468	SAA	SN6506-11-131-C	-6.13	2.4~2.4835	PIFA	i-pex(MHF)	3.71	1310mm(131cm)
469	SAA	SN6506-11-132-C	-6.16	2.4~2.4835	PIFA	i-pex(MHF)	3.74	1320mm(132cm)
470	SAA	SN6506-11-133-C	-6.19	2.4~2.4835	PIFA	i-pex(MHF)	3.77	1330mm(133cm)
471	SAA	SN6506-11-134-C	-6.21	2.4~2.4835	PIFA	i-pex(MHF)	3.79	1340mm(134cm)
472	SAA	SN6506-11-135-C	-6.24	2.4~2.4835	PIFA	i-pex(MHF)	3.82	1350mm(135cm)
473	SAA	SN6506-11-136-C	-6.27	2.4~2.4835	PIFA	i-pex(MHF)	3.85	1360mm(136cm)
474	SAA	SN6506-11-137-C	-6.29	2.4~2.4835	PIFA	i-pex(MHF)	3.87	1370mm(137cm)
475	SAA	SN6506-11-138-C	-6.32	2.4~2.4835	PIFA	i-pex(MHF)	3.90	1380mm(138cm)
476	SAA	SN6506-11-139-C	-6.35	2.4~2.4835	PIFA	i-pex(MHF)	3.93	1390mm(139cm)
477	SAA	SN6506-11-140-C	-6.37	2.4~2.4835	PIFA	i-pex(MHF)	3.95	1400mm(140cm)
478	SAA	SN6506-11-141-C	-6.40	2.4~2.4835	PIFA	i-pex(MHF)	3.98	1410mm(141cm)
479	SAA	SN6506-11-142-C	-6.42	2.4~2.4835	PIFA	i-pex(MHF)	4.00	1420mm(142cm)
480	SAA	SN6506-11-143-C	-6.45	2.4~2.4835	PIFA	i-pex(MHF)	4.03	1430mm(143cm)
481	SAA	SN6506-11-144-C	-6.48	2.4~2.4835	PIFA	i-pex(MHF)	4.06	1440mm(144cm)
482	SAA	SN6506-11-145-C	-6.50	2.4~2.4835	PIFA	i-pex(MHF)	4.08	1450mm(145cm)
483	SAA	SN6506-11-146-C	-6.53	2.4~2.4835	PIFA	i-pex(MHF)	4.11	1460mm(146cm)
484	SAA	SN6506-11-147-C	-6.56	2.4~2.4835	PIFA	i-pex(MHF)	4.14	1470mm(147cm)
485	SAA	SN6506-11-148-C	-6.58	2.4~2.4835	PIFA	i-pex(MHF)	4.16	1480mm(148cm)
486	SAA	SN6506-11-149-C	-6.61	2.4~2.4835	PIFA	i-pex(MHF)	4.19	1490mm(149cm)
487	SAA	SN6506-11-150-C	-6.63	2.4~2.4835	PIFA	i-pex(MHF)	4.21	1500mm(150cm)
488	SAA	SN6506-11-151-C	-6.66	2.4~2.4835	PIFA	i-pex(MHF)	4.24	1510mm(151cm)
489	SAA	SN6506-11-152-C	-6.69	2.4~2.4835	PIFA	i-pex(MHF)	4.27	1520mm(152cm)
490	SAA	SN6506-11-153-C	-6.71	2.4~2.4835	PIFA	i-pex(MHF)	4.29	1530mm(153cm)
491	SAA	SN6506-11-154-C	-6.74	2.4~2.4835	PIFA	i-pex(MHF)	4.32	1540mm(154cm)

492	SAA	SN6506-11-155-C	-6.77	2.4~2.4835	PIFA	i-pex(MHF)	4.35	1550mm(155cm)
493	SAA	SN6506-11-156-C	-6.79	2.4~2.4835	PIFA	i-pex(MHF)	4.37	1560mm(156cm)
494	SAA	SN6506-11-157-C	-6.82	2.4~2.4835	PIFA	i-pex(MHF)	4.40	1570mm(157cm)
495	SAA	SN6506-11-158-C	-6.85	2.4~2.4835	PIFA	i-pex(MHF)	4.43	1580mm(158cm)
496	SAA	SN6506-11-159-C	-6.87	2.4~2.4835	PIFA	i-pex(MHF)	4.45	1590mm(159cm)
497	SAA	SN6506-11-160-C	-6.90	2.4~2.4835	PIFA	i-pex(MHF)	4.48	1600mm(160cm)
498	SAA	SN6506-11-161-C	-6.92	2.4~2.4835	PIFA	i-pex(MHF)	4.50	1610mm(161cm)
499	SAA	SN6506-11-162-C	-6.95	2.4~2.4835	PIFA	i-pex(MHF)	4.53	1620mm(162cm)
500	SAA	SN6506-11-163-C	-6.98	2.4~2.4835	PIFA	i-pex(MHF)	4.56	1630mm(163cm)
501	SAA	SN6506-11-164-C	-7.00	2.4~2.4835	PIFA	i-pex(MHF)	4.58	1640mm(164cm)
502	SAA	SN6506-11-165-C	-7.03	2.4~2.4835	PIFA	i-pex(MHF)	4.61	1650mm(165cm)
503	SAA	SN6506-11-166-C	-7.06	2.4~2.4835	PIFA	i-pex(MHF)	4.64	1660mm(166cm)
504	SAA	SN6506-11-167-C	-7.08	2.4~2.4835	PIFA	i-pex(MHF)	4.66	1670mm(167cm)
505	SAA	SN6506-11-168-C	-7.11	2.4~2.4835	PIFA	i-pex(MHF)	4.69	1680mm(168cm)
506	SAA	SN6506-11-169-C	-7.13	2.4~2.4835	PIFA	i-pex(MHF)	4.71	1690mm(169cm)
507	SAA	SN6506-11-170-C	-7.16	2.4~2.4835	PIFA	i-pex(MHF)	4.74	1700mm(170cm)
508	SAA	SN6506-11-171-C	-7.19	2.4~2.4835	PIFA	i-pex(MHF)	4.77	1710mm(171cm)
509	SAA	SN6506-11-172-C	-7.21	2.4~2.4835	PIFA	i-pex(MHF)	4.79	1720mm(172cm)
510	SAA	SN6506-11-173-C	-7.24	2.4~2.4835	PIFA	i-pex(MHF)	4.82	1730mm(173cm)
511	SAA	SN6506-11-174-C	-7.27	2.4~2.4835	PIFA	i-pex(MHF)	4.85	1740mm(174cm)
512	SAA	SN6506-11-175-C	-7.29	2.4~2.4835	PIFA	i-pex(MHF)	4.87	1750mm(175cm)
513	SAA	SN6506-11-176-C	-7.32	2.4~2.4835	PIFA	i-pex(MHF)	4.90	1760mm(176cm)
514	SAA	SN6506-11-177-C	-7.35	2.4~2.4835	PIFA	i-pex(MHF)	4.93	1770mm(177cm)
515	SAA	SN6506-11-178-C	-7.37	2.4~2.4835	PIFA	i-pex(MHF)	4.95	1780mm(178cm)
516	SAA	SN6506-11-179-C	-7.40	2.4~2.4835	PIFA	i-pex(MHF)	4.98	1790mm(179cm)
517	SAA	SN6506-11-180-C	-7.42	2.4~2.4835	PIFA	i-pex(MHF)	5.00	1800mm(180cm)
518	SAA	SN6506-11-200-C	-8.31	2.4~2.4835	PIFA	i-pex(MHF)	5.50	2000mm(200cm)
Form above antennas for BT, the max antenna gain (ANTS2M1-CSG50-EF: 2.58dBi) was selected as representative value for the test and its data was recorder in this report.								

For WLAN used						
Antenna Set.	PCB Chain	Brand	Model	Antenna Gain(dBi)	Frequency range (GHz-GHz)	Antenna Type
1	Chain 0	Foxconn Corp.(FIT)	ANTS2M2-CZZ04-EF	1.3	2.4~2.5	Metal PIFA
				3.61	5.15~5.35	
				3.69	5.47~5.725	
				3.06	5.725~5.850	
	Chain 1	Foxconn Corp.(FIT)	ANTS2M2-CZZ03-EF	3.32	2.4~2.5	Metal PIFA
				1.92	5.15~5.35	
				2	5.47~5.725	
				-0.84	5.725~5.850	

5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

40 channels are provided to this EUT:

CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE: The EUT'antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane.**

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)
0 to 39	0, 19, 39	GFSK	1

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)
0 to 39	0	GFSK	1

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)
0 to 39	0	GFSK	1

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

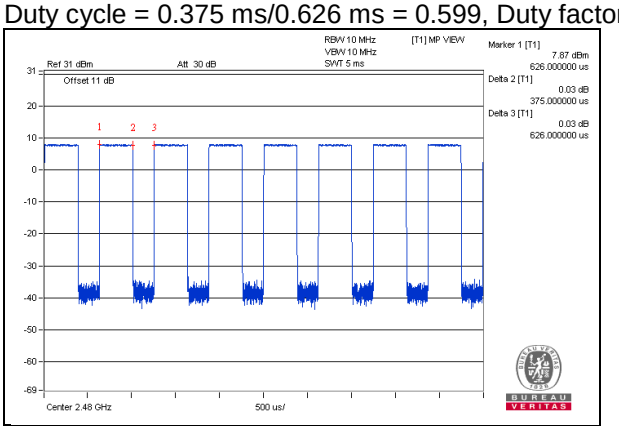
AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)
0 to 39	0, 19, 39	GFSK	1

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	21deg. C, 69%RH	120Vac, 60Hz	Russell Yeh
RE<1G	24deg. C, 74%RH	120Vac, 60Hz	Russell Yeh
PLC	23deg. C, 72%RH	120Vac, 60Hz	Arthur Yang
APCM	23deg. C, 66%RH	120Vac, 60Hz	Anderson Chen

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98 %, duty factor shall be considered.
Duty cycle = 0.375 ms/0.626 ms = 0.599, Duty factor = 10 * log(1/0.599) = 2.2



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

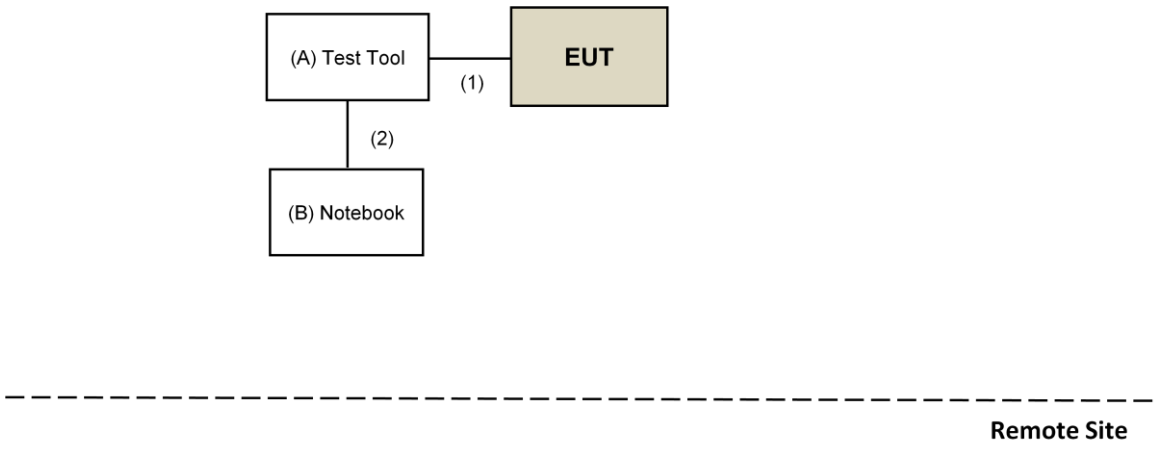
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Test Tool	NA	NA	NA	NA	Supplied by client
B.	Notebook Computer	LENOVO	E440	PF071LWC	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Console Cable	1	0.1	No	0	Supplied by client
2.	USB Cable	1	1	Yes	0	Provided by Lab

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247)
KDB 558074 D01 DTS Meas Guidance v03r05
ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

NOTE: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY54450088	July 24, 2015	July 23, 2016
Pre-Amplifier(*) EMCI	EMC001340	980142	Jan. 20, 2016	Jan. 19, 2018
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2014	Dec. 15, 2016
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 18, 2016	Jan. 17, 2017
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Nov. 11, 2015	Nov. 10, 2016
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Jan. 04, 2016	Jan. 03, 2017
RF Cable	8D	966-4-1 966-4-2 966-4-3	Apr. 02, 2016	Apr. 01, 2017
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Jan. 19, 2016	Jan. 18, 2017
Pre-Amplifier Agilent	8449B	3008A01922	Sep. 19, 2015	Sep. 18, 2016
RF Cable	EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000	150318 150323 150324	Mar. 30, 2016	Mar. 29, 2017
Pre-Amplifier EMCI	EMC184045	980143	Jan. 15, 2016	Jan. 14, 2017
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Jan. 08, 2016	Jan. 07, 2017
RF Cable	SUCOFLEX 102	36432/2 36441/2	Jan. 16, 2016	Jan. 15, 2017
Software	ADT_Radiated_V8.7.07	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208410	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP02	NA	NA
Spectrum Analyzer R&S	FSP40	100060	May 11, 2016	May 10, 2017
Power meter Anritsu	ML2495A	1014008	May 05, 2016	May 04, 2017
Power sensor Anritsu	MA2411B	0917122	May 05, 2016	May 04, 2017

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. *The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 4.
4. The FCC Site Registration No. is 292998
5. The CANADA Site Registration No. is 20331-2
6 Loop antenna was used for all emissions below 30 MHz.
7. Tested Date: May 26 to June 13, 2016

4.1.3 Test Procedures

a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

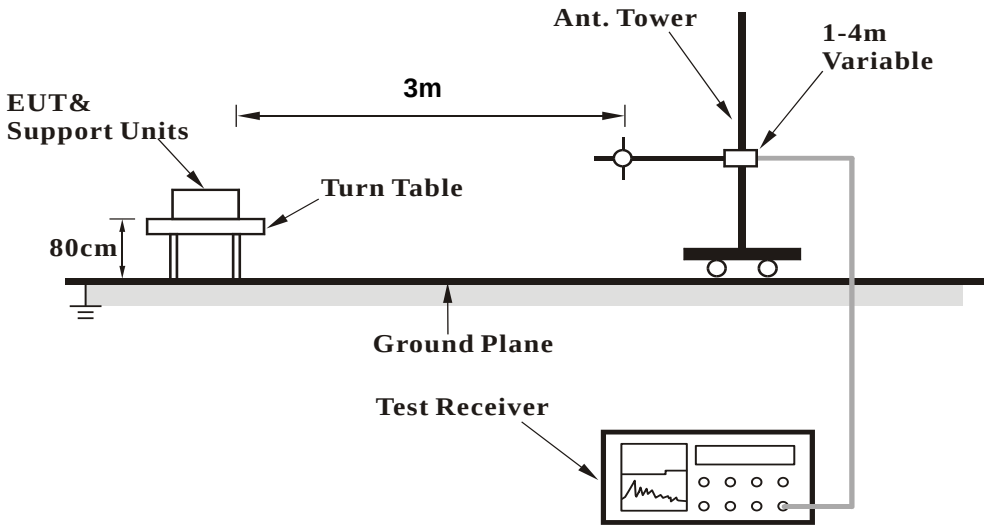
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

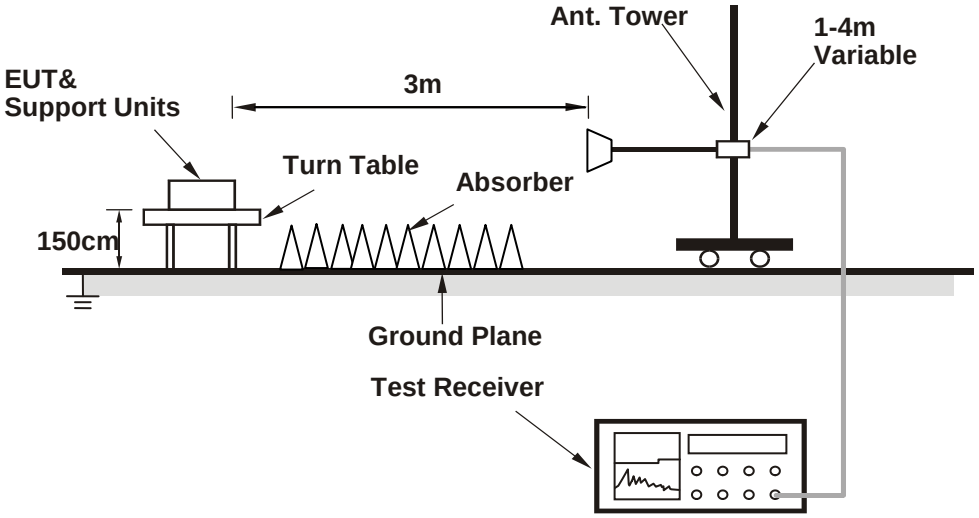
No deviation.

4.1.5 Test Set Up

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

a. Connected the EUT with the Notebook Computer which is placed on remote site.
b. Contorlling software (WCN Combo Tool.exe [Ver 2.14.34.0]) has been activated to set the EUT on specific status.

4.1.7 Test Results

Above 1GHz Data:

CHANNEL	TX Channel 0	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	2390.00	51.2 PK	74.0	-22.8	2.19 H	223	56.8	-5.6
2	2390.00	40.4 AV	54.0	-13.6	2.19 H	223	46.0	-5.6
3	*2402.00	103.9 PK			2.19 H	223	109.5	-5.6
4	*2402.00	102.8 AV			2.19 H	223	108.4	-5.6
5	4804.00	44.2 PK	74.0	-29.8	1.85 H	222	43.3	0.9
6	4804.00	32.6 AV	54.0	-21.4	1.85 H	222	31.7	0.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	2390.00	50.3 PK	74.0	-23.7	1.70 V	349	55.9	-5.6
2	2390.00	39.7 AV	54.0	-14.3	1.70 V	349	45.3	-5.6
3	*2402.00	102.7 PK			1.70 V	349	108.3	-5.6
4	*2402.00	101.5 AV			1.70 V	349	107.1	-5.6
5	4804.00	44.0 PK	74.0	-30.0	2.13 V	45	43.1	0.9
6	4804.00	32.4 AV	54.0	-21.6	2.13 V	45	31.5	0.9

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2440.00	103.2 PK			2.12 H	220	108.6	-5.4
2	*2440.00	102.1 AV			2.12 H	220	107.5	-5.4
3	4880.00	43.9 PK	74.0	-30.1	1.88 H	215	42.9	1.0
4	4880.00	32.4 AV	54.0	-21.6	1.88 H	215	31.4	1.0
5	7320.00	50.2 PK	74.0	-23.8	2.22 H	251	42.6	7.6
6	7320.00	38.3 AV	54.0	-15.7	2.22 H	251	30.7	7.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2440.00	103.2 PK			1.78 V	352	108.6	-5.4
2	*2440.00	102.0 AV			1.78 V	352	107.4	-5.4
3	4880.00	44.4 PK	74.0	-29.6	2.16 V	67	43.4	1.0
4	4880.00	32.7 AV	54.0	-21.3	2.16 V	67	31.7	1.0
5	7320.00	50.1 PK	74.0	-23.9	3.08 V	256	42.5	7.6
6	7320.00	38.1 AV	54.0	-15.9	3.08 V	256	30.5	7.6

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2480.00	103.9 PK			2.02 H	225	109.2	-5.3
2	*2480.00	102.9 AV			2.02 H	225	108.2	-5.3
3	2483.50	56.3 PK	74.0	-17.7	2.02 H	225	61.6	-5.3
4	2483.50	45.3 AV	54.0	-8.7	2.02 H	225	50.6	-5.3
5	4960.00	44.3 PK	74.0	-29.7	1.81 H	209	42.9	1.4
6	4960.00	32.7 AV	54.0	-21.3	1.81 H	209	31.3	1.4
7	7440.00	50.5 PK	74.0	-23.5	2.24 H	259	42.6	7.9
8	7440.00	38.6 AV	54.0	-15.4	2.24 H	259	30.7	7.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2480.00	103.1 PK			1.72 V	360	108.4	-5.3
2	*2480.00	101.8 AV			1.72 V	360	107.1	-5.3
3	2483.50	55.3 PK	74.0	-18.7	1.72 V	360	60.6	-5.3
4	2483.50	44.1 AV	54.0	-9.9	1.72 V	360	49.4	-5.3
5	4960.00	43.3 PK	74.0	-30.7	2.22 V	50	41.9	1.4
6	4960.00	32.0 AV	54.0	-22.0	2.22 V	50	30.6	1.4
7	7440.00	50.2 PK	74.0	-23.8	2.99 V	260	42.3	7.9
8	7440.00	38.0 AV	54.0	-16.0	2.99 V	260	30.1	7.9

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

Below 1GHz Data:

CHANNEL	TX Channel 0	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	Below 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	109.39	25.7 QP	43.5	-17.8	1.50 H	292	37.2	-11.5
2	169.46	35.6 QP	43.5	-7.9	2.00 H	187	44.7	-9.1
3	**260.79**	**41.4 QP**	**46.0**	**-4.6**	**1.00 H**	**262**	**50.9**	**-9.5**
4	322.45	39.5 QP	46.0	-6.5	1.00 H	278	46.7	-7.2
5	403.23	30.0 QP	46.0	-16.0	1.00 H	78	35.3	-5.3
6	608.75	37.5 QP	46.0	-8.5	1.50 H	34	37.8	-0.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	108.30	22.4 QP	43.5	-21.1	1.00 V	29	33.9	-11.5
2	163.71	32.9 QP	43.5	-10.6	1.00 V	86	41.6	-8.7
3	241.99	27.6 QP	46.0	-18.4	2.00 V	225	37.8	-10.2
4	282.37	32.4 QP	46.0	-13.6	1.50 V	200	40.9	-8.5
5	405.39	30.1 QP	46.0	-15.9	1.00 V	200	35.3	-5.2
6	612.44	26.6 QP	46.0	-19.4	1.50 V	274	26.8	-0.2

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	100375	May 09, 2016	May 08, 2017
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-522	Sep. 01, 2015	Aug. 31, 2016
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100072	June 11, 2015	June 10, 2016
RF Cable	5D-FB	COCCAB-001	Mar. 08, 2016	Mar. 07, 2017
10 dB PAD Mini-Circuits	HAT-10+	CONATT-002	Sep. 14, 2015	Sep. 13, 2016
50 ohms Terminator	N/A	EMC-03	Sep. 23, 2015	Sep. 22, 2016
50 ohms Terminator	N/A	EMC-02	Oct. 01, 2015	Sep. 30, 2016
50 ohms Terminator	E1-011315	13	Dec. 11 2015	Dec. 10 2016
Software BVADT	BVADT_Cond_ V7.3.7.3	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. C.
3 The VCCI Con C Registration No. is C-3611.
4 Tested Date: May 30, 2016

4.2.3 Test Procedures

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

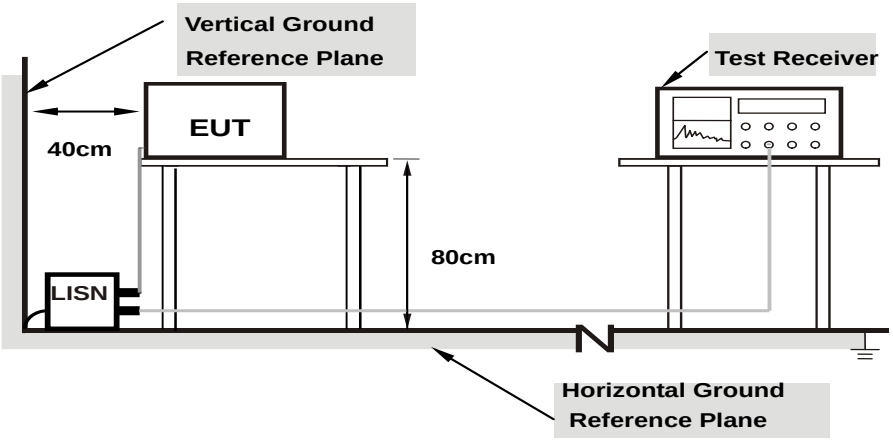
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

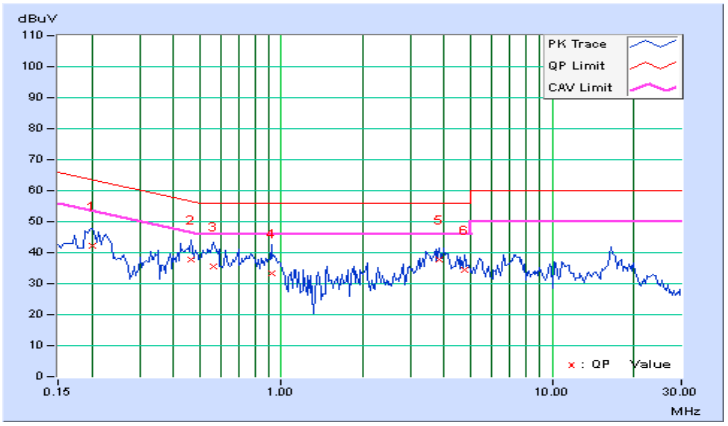
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20078	10.28	31.92	20.94	42.20	31.22	63.58	53.58	-21.38	-22.36
2	0.46250	10.29	27.49	13.14	37.78	23.43	56.65	46.65	-18.87	-23.22
3	0.56406	10.28	25.41	11.09	35.69	21.37	56.00	46.00	-20.31	-24.63
4	0.91953	10.24	23.04	11.46	33.28	21.70	56.00	46.00	-22.72	-24.30
5	**3.82031**	**10.41**	**27.41**	**21.88**	**37.82**	**32.29**	**56.00**	**46.00**	**-18.18**	**-13.71**
6	4.74609	10.44	23.93	17.53	34.37	27.97	56.00	46.00	-21.63	-18.03

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

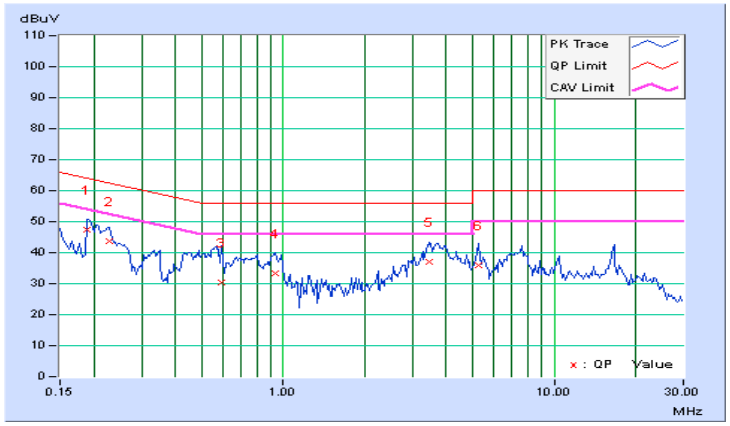


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18906	10.27	37.29	21.10	47.56	31.37	64.08	54.08	-16.52	-22.71
2	0.22812	10.26	33.36	20.43	43.62	30.69	62.52	52.52	-18.90	-21.83
3	0.59531	10.26	20.11	4.73	30.37	14.99	56.00	46.00	-25.63	-31.01
4	0.93125	10.23	23.04	8.50	33.27	18.73	56.00	46.00	-22.73	-27.27
5	3.44922	10.39	26.67	20.76	37.06	31.15	56.00	46.00	-18.94	-14.85
6	5.28516	10.46	25.62	20.43	36.08	30.89	60.00	50.00	-23.92	-19.11

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

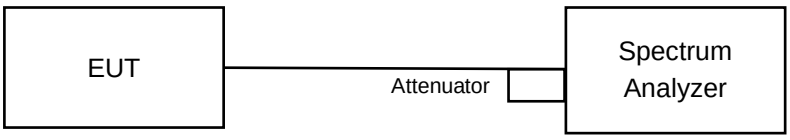


4.3 6dB Bandwidth Measurement

4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.3.5 Deviation fromTest Standard

No deviation.

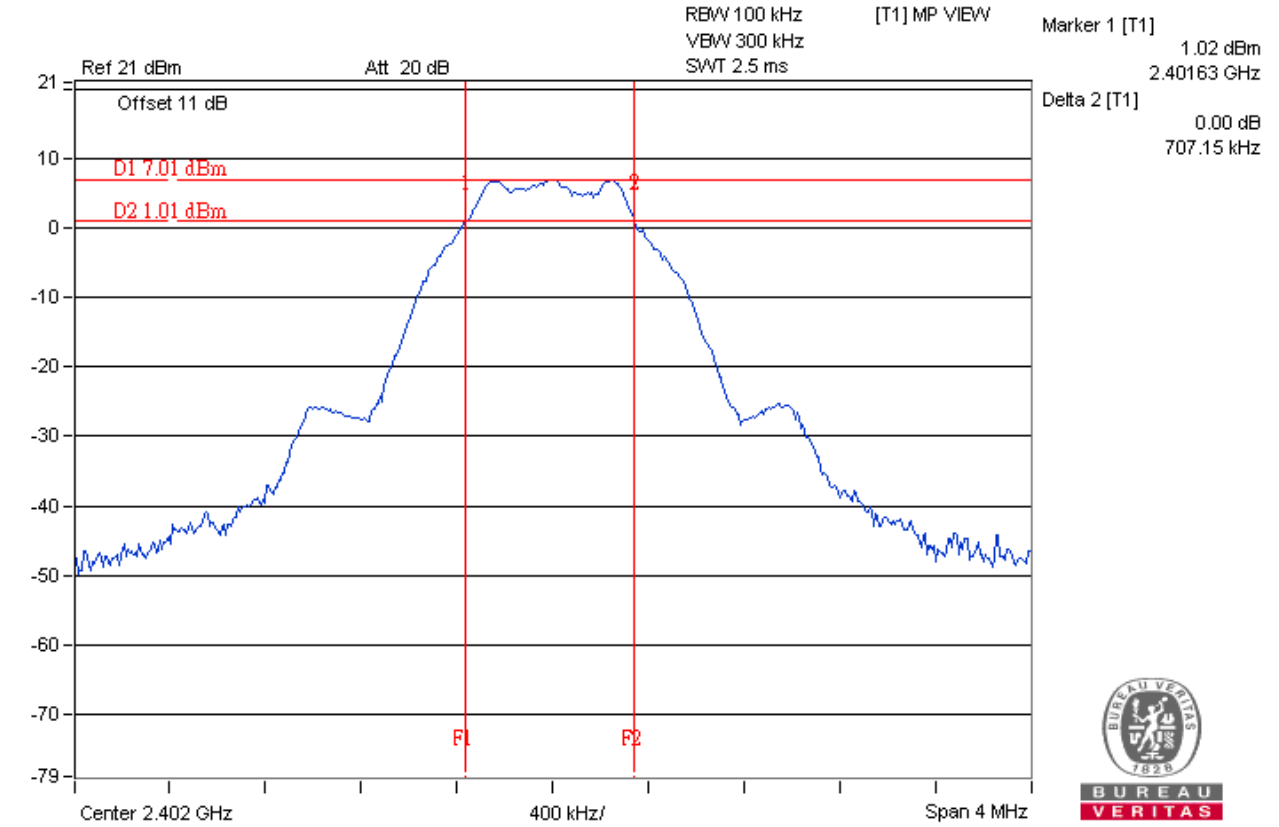
4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Result

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
0	2402	0.70	0.5	PASS
19	2440	0.71	0.5	PASS
39	2480	0.71	0.5	PASS

Spectrum Plot of Worst Value
CH 0

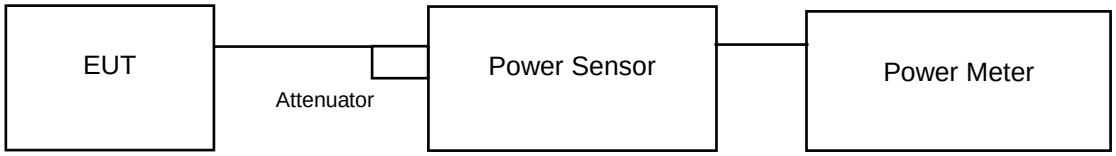


4.4 Conducted Output Power Measurement

4.4.1 Limits OF Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

A peak / average power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak / average power sensor. Record the power level.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

FOR PEAK POWER

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
0	2402	7.228	8.59	30	Pass
19	2440	6.339	8.02	30	Pass
39	2480	6.982	8.44	30	Pass

FOR AVERAGE POWER

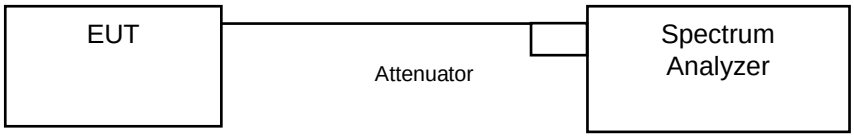
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	4.188	6.22
19	2440	3.673	5.65
39	2480	3.999	6.02

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

a. Set analyzer center frequency to DTS channel center frequency.
b. Set the span to 1.5 times the DTS bandwidth.
c. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d. Set the VBW ≥ 3 × RBW.
e. Detector = peak.
f. Sweep time = auto couple.
g. Trace mode = max hold.
h. Allow trace to fully stabilize.
i. Use the peak marker function to determine the maximum amplitude level within the RBW.

4.5.5 Deviation from Test Standard

No deviation.

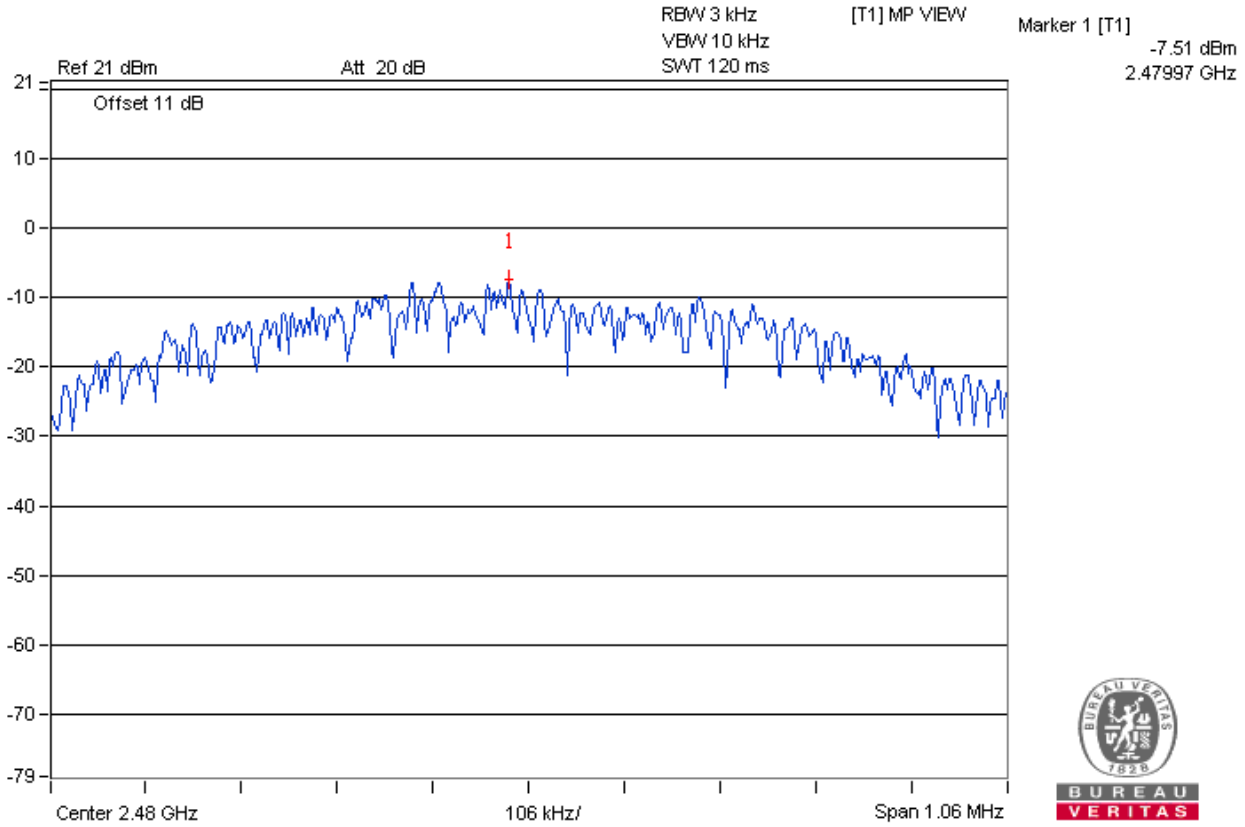
4.5.6 EUT Operating Condition

Same as Item 4.3.6

4.5.7 Test Results

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	2402	-7.63	8	Pass
19	2440	-7.78	8	Pass
39	2480	-7.51	8	Pass

Spectrum Plot of Worst Value
CH39

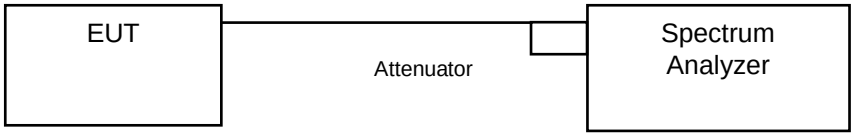


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

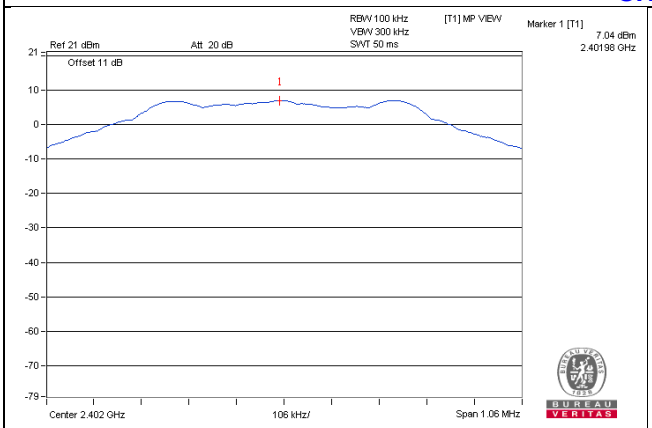
No deviation.

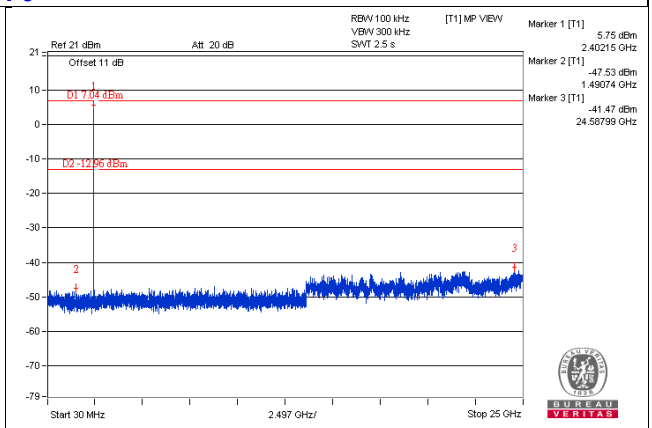
4.6.6 EUT Operating Condition

Same as Item 4.3.6

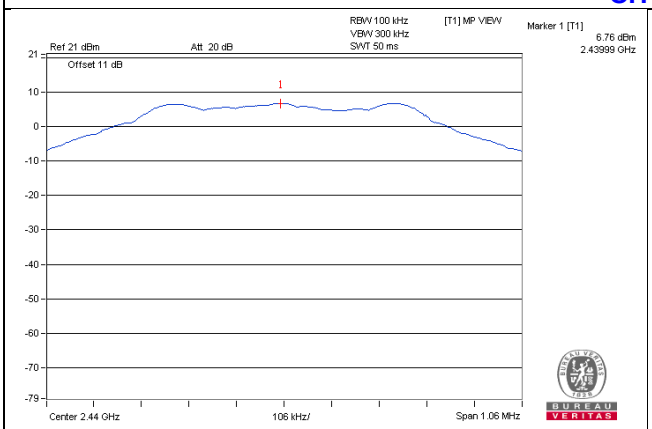
4.6.7 Test Results

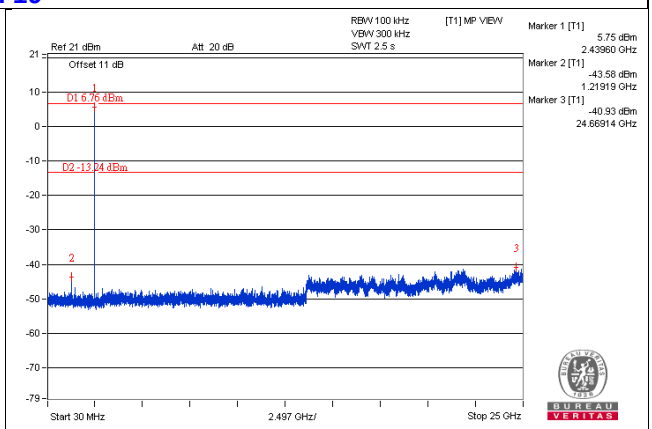
CH 0



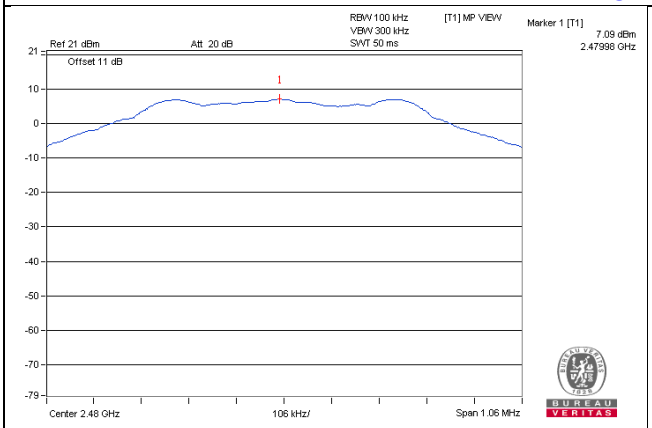


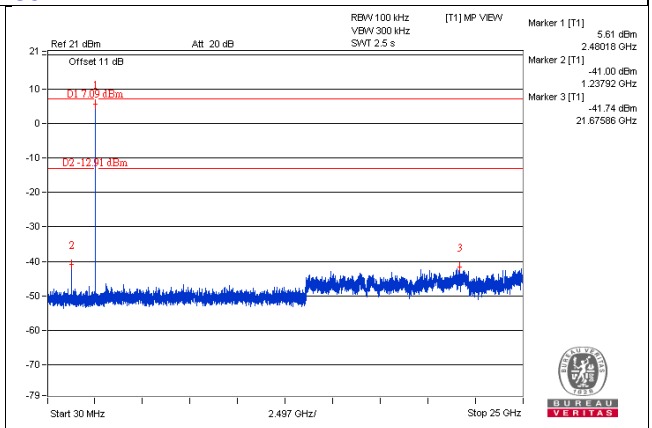
CH 19



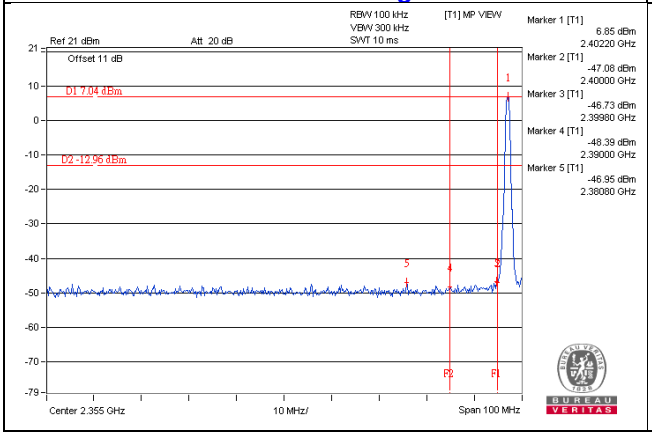


CH 39

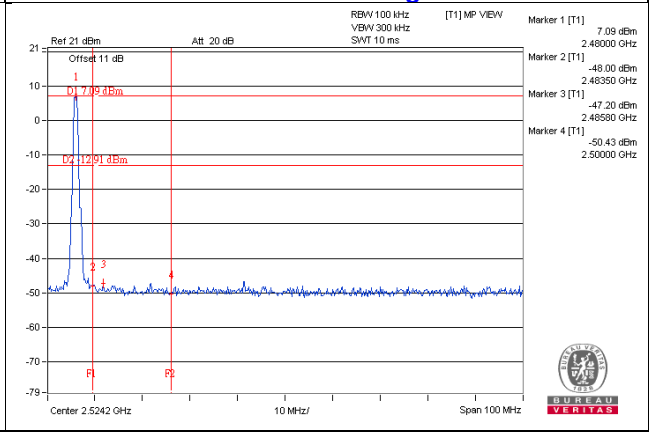




CH 0 Band edge



CH 39 Band edge



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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