

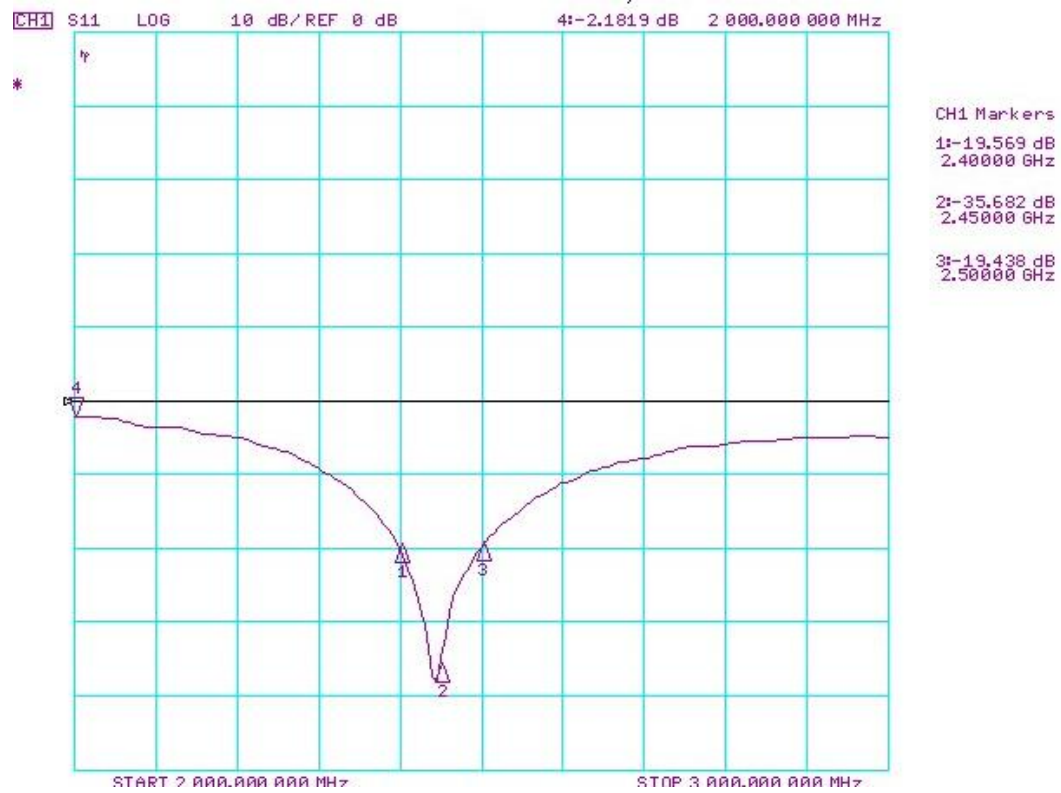
1. Feature and Application

- . dipole antenna design
- . small size / high gain / omni-directional radiation pattern
- . IEEE 802.11 b / g WLAN AP (Access Point) application
- . Bluetooth / HomeRF / ISM Band and other 2.4 GHz wireless communication application

2. Specification

1. Frequency Range	2400 ~ 2500 MHz
2. V.S.W.R.	< 2.0
3. Antenna Gain	2.0 dBi
4. Antenna Radiation Pattern	Omni-directional
5. Impedance	50 ohm
6. Color of Outer Cover	Black
7. Material of Outer Cover	TPE
8. Material of Hinge	PC
9. Operation Temperature	-40°C ~ + 90 °C
10. Storage Temperature	-30°C ~ + 75 °C
Manufacturer	Aidibao Sporting Goods (Shenzhen) Co., LTD
Address	Room 305, Floor 3, Building 2, Huisengda Factory Building, No. 29, Qingcui Road, Longhua District, Shenzhen, China

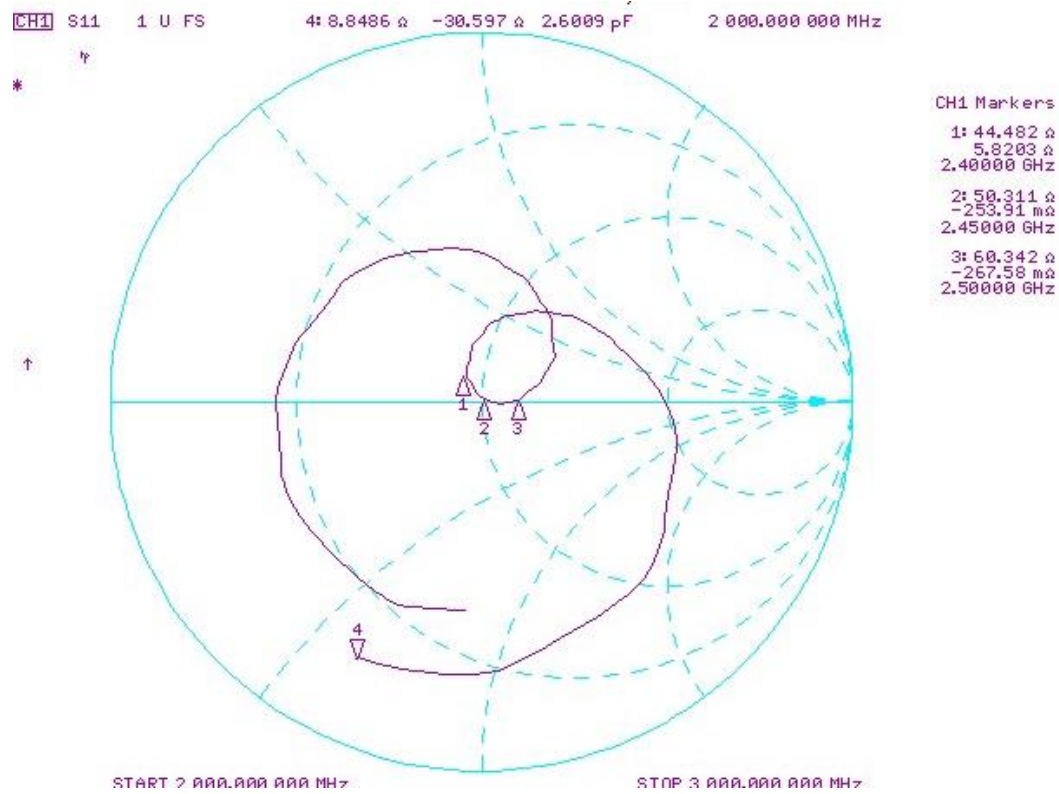
3. S11 Return Loss Testing Data



4. V.S.W.R Testing Data

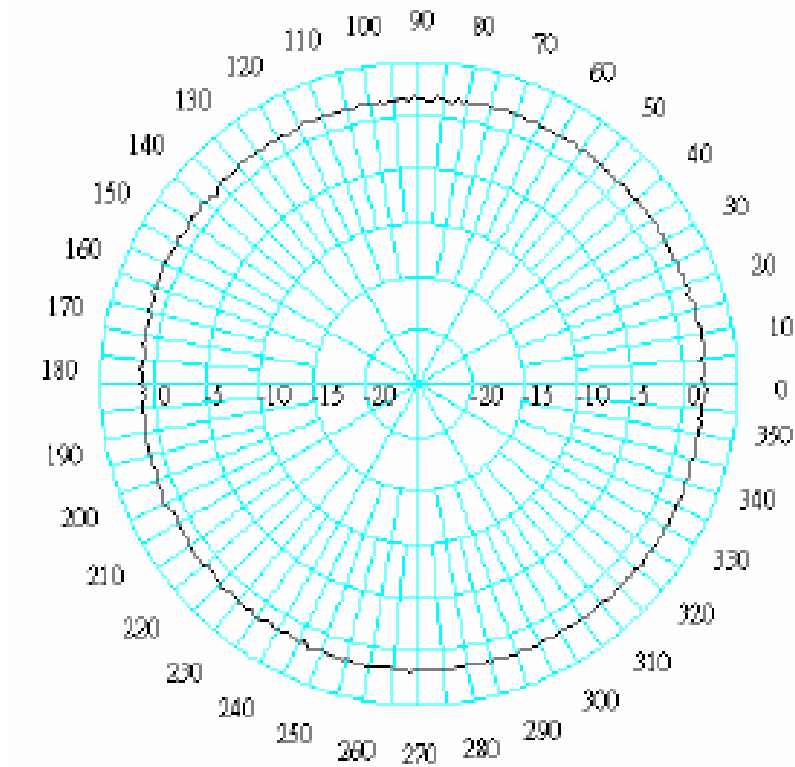


5. Smith Chart and Impedance Testing Data

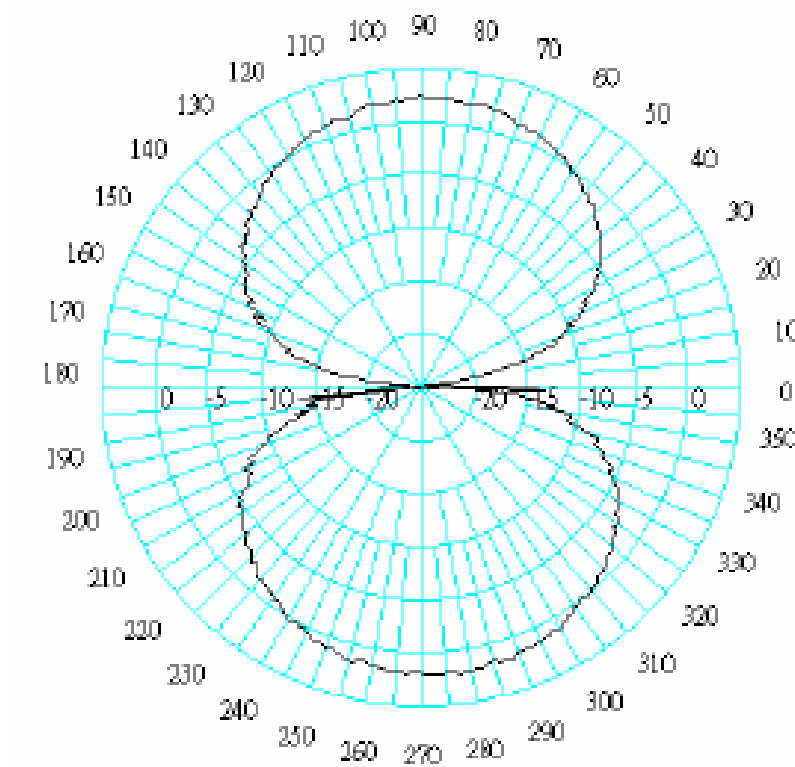


6. Antenna Radiation Pattern

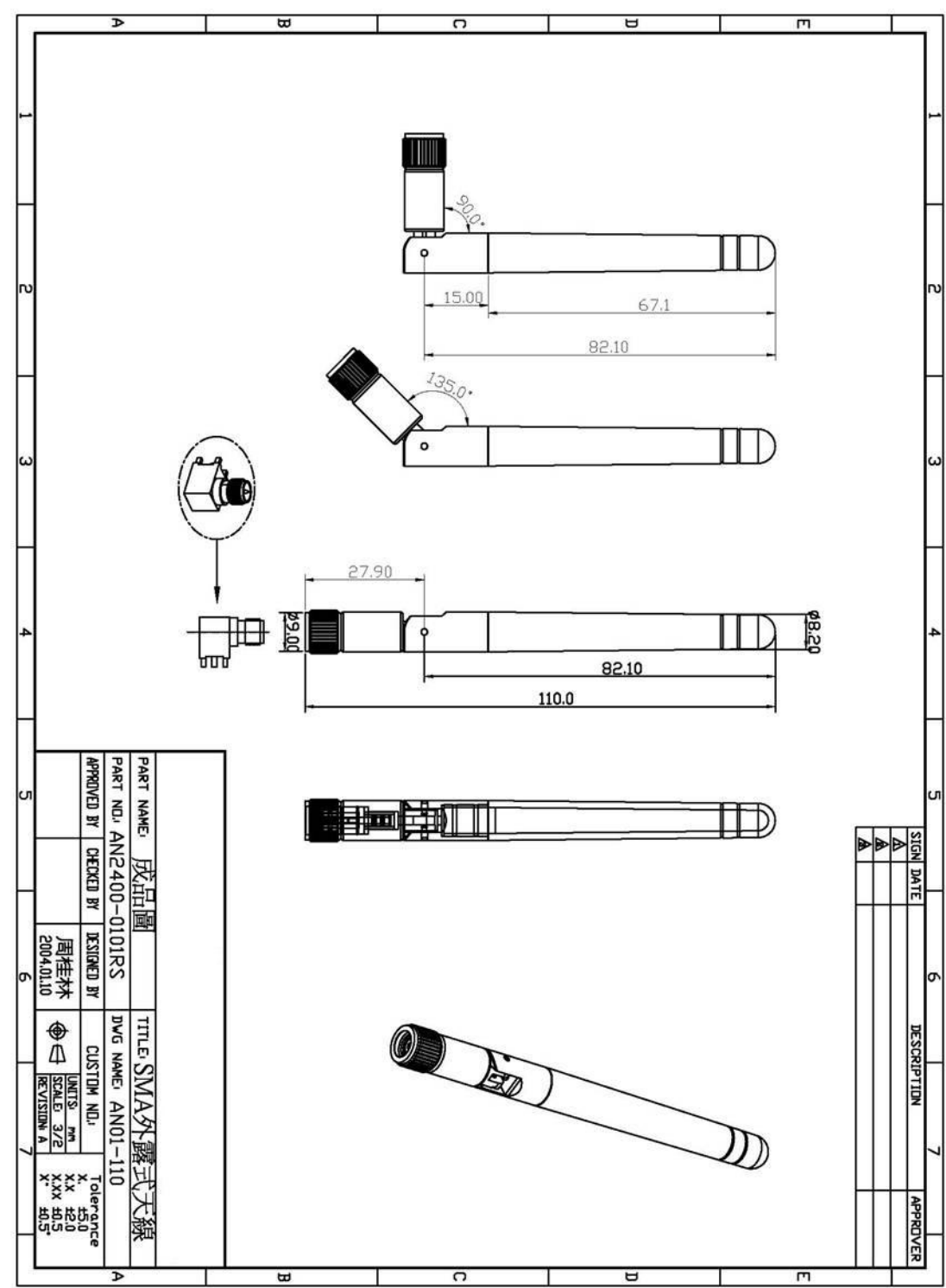
--- Horizontal Plane



--- Vertical Plane



7. Mechanical Dimension Drawing



8. Outer Cover Material Specification of TPE/TFE

各種充てん材入りPTFEの特性

単位	測定条件	充てん材 (重量%)	純PTFE	ガラスファイバー15%				ガラスファイバー20%		ガラスファイバー25%		ガラスファイバー30%		ガラスファイバー35%	
				G15	G20	G25	G30	G35	G40	G45	G50	G55	G60	G65	G70
比重	g/cm ³	25°C	2.17	2.23	2.24	2.26	2.28	2.30	2.32	2.34	2.36	2.38	2.40	2.42	2.44
熱伝導率	kcal/m·hr·°C	25°C	0.20	0.29	0.30	0.34	0.36	0.38	0.40	0.42	0.44	0.46	0.48	0.50	0.52
熱膨張係数	×10 ⁻⁵ /°C	25~100°C	MD 11	11	10	9	8	7	6	5	4	3	2	1	0
			CD 10	8	7	6	5	4	3	2	1	0	0	0	0
		25~150°C	MD 12	12	11	10	9	8	7	6	5	4	3	2	1
			CD 11	8	8	7	6	5	4	3	2	1	0	0	0
		25~200°C	MD 14	13	12	11	10	9	8	7	6	5	4	3	2
			CD 12	9	9	7	6	5	4	3	2	1	0	0	0
		25~250°C	MD 17	14	13	13	12	11	10	9	8	7	6	5	4
			CD 16	10	10	9	8	7	6	5	4	3	2	1	0
		JISK6891	330	290	234	220	200	180	160	140	120	100	80	60	40
		JISK6891	350	340	338	310	325	310	290	270	250	230	210	190	170
		0.2%オフセット	MD —	—	85	—	—	—	—	—	—	—	—	—	—
		24°C	CD 73	74	76	80	100	—	—	—	—	—	—	—	—
圧縮強さ	kgf/cm ²	1%変形	MD —	—	63	—	—	—	—	—	—	—	—	—	—
		24°C	CD 44	50	60	80	70	—	—	—	—	—	—	—	—
		25%変形	MD —	—	254	—	—	—	—	—	—	—	—	—	—
		24°C	CD 280	280	283	290	300	—	—	—	—	—	—	—	—
圧縮弾性率	kgf/cm ²		MD —	—	—	—	—	—	—	—	—	—	—	—	—
			CD 5.7×10 ³	8.8×10 ³	9.6×10 ³	10.6×10 ³	7.8×10 ³	—	—	—	—	—	—	—	—
曲げ強さ (弾性率)	kgf/cm ²	ASTMD-790	CD 3.5~ 6.3×10 ³	21.8×10 ³	19.0×10 ³	16.7×10 ³	—	—	—	—	—	—	—	—	—
		ASTMD-621 140kgf/cm ² 25°C 24hrs 2	MD 9.5	8.8	8.5	7.9	5.0	—	—	—	—	—	—	—	—
圧縮クリープ 変形率	%	70kgf/cm ² 25°C・24hrs	MD 4.8	4.4	3.6	3.5	3.1	—	—	—	—	—	—	—	—
			CD —	—	—	—	—	—	—	—	—	—	—	—	—
		140kgf/cm ² 25°C・24hrs	MD 7.0	6.9	6.7	6.2	3.8	—	—	—	—	—	—	—	—
			CD —	—	11.5	—	—	—	—	—	—	—	—	—	—
永久変形	%	70kgf/cm ² 25°C・24hrs	MD 4.6	3.8	3.5	3.3	3.0	—	—	—	—	—	—	—	—
			CD —	—	—	—	—	—	—	—	—	—	—	—	—
硬度	ショアA-D		58	58	59	60	58	—	—	—	—	—	—	—	—
摩擦係数(動)			0.22	0.24	0.24	0.26	0.23	—	—	—	—	—	—	—	—
摩擦係数(静)			0.045	0.065	0.073	0.085	0.058	—	—	—	—	—	—	—	—
摩耗係数	mm/km kgf/cm ²	65hrs鈴木式 試験機による	2×10 ⁻²	1.2×10 ⁻⁵	1.1×10 ⁻⁵	1.0×10 ⁻⁵	6.7×10 ⁻⁵	—	—	—	—	—	—	—	—
絶縁耐力	kV/mm	JISD2120(油中)	46.4	17.4	15.5	13.7	4.1	—	—	—	—	—	—	—	—
誘電率		JISD6911 10 ³ Hz	2.06	2.64	2.91	2.94	—	—	—	—	—	—	—	—	—
		10 ⁶ Hz	2.06	2.80	2.77	2.89	—	—	—	—	—	—	—	—	—
吸水率	%	3.2mmt24H ASTMD570	0.01>	0.015	0.014	0.013	0	—	—	—	—	—	—	—	—

* MDは成形加工に平行方向, CDは成形加工に垂直方向

* この値はフッ素樹脂メーカーのデータに基づいた数値も含まれます。

数値は、ある一定環境において行われた実験データで、環境の違いにより若干異なることがあります。(規格値ではありません)

9. Hinge Material Specification of PC

QMFZ2

October 27, 1997

Component - Plastics

TEIJIN CHEMICALS LTD

E50075 (M)

(C - cont. from B010 card)

L-1225LM(d), L-12252L(d)	All	0.40	94V-2	80	80	80	4	3	2	—	—
		0.75	94V-2	80	80	80	3	1	2	—	—
		1.5	94V-2	125	115	125	3	1	3	—	—
		2.1	94HB	125	115	125	3	1	3	—	—
		3.0	94HB	125	115	125	2	1	3	5	2
		6.0	94HB	125	115	125	1	1	4	—	—
L-1225LL(d)	All	0.4	94V-2	80	80	80	4	3	2	—	—
		0.75	94V-2	80	80	80	3	1	2	—	—
		1.5	94V-2	125	115	125	3	1	3	—	—
		3.0	94V-2	125	115	125	3	1	3	5	2
		3.3	94HB	125	115	125	2	1	3	—	—
		6.0	94HB	125	115	125	1	1	4	—	—
L-1250H(f2)(d), L-1250UR(d), L-1250VW(d), L-12502W(d)	All	0.40	94V-2	80	80	80	4	3	2	—	—
		0.84	94V-2	80	80	80	4	—	4	—	—
		1.5	94HB	125	115	125	4	0	3	—	—
		3.0	94HB	125	115	125	2	0	3	5	2
		6.0	94HB	125	115	125	1	0	4	—	—

Reports: February 10, 1989; February 10, 1989; September 24, 1990.

Replaces E50075C dated November 1, 1994.

699748006

N7067

Underwriters Laboratories Inc.®

(Cont. on C005 card)

D11/0032918

QMFZ8

July 28, 1997

Component - Plastics Certified For Canada

TEIJIN CHEMICALS LTD

E50075 (M)

(C - cont. from B card)

(cc) 10 thru 30 incl.

(i) A two digit number (10-15) denoting carbon filler content.

(j) A two digit number (10-40) denoting the total content of carbon fiber and glass fiber.

ww - A two digit number 10 thru 20 denoting content of carbon filler.

Any one or two letters may be suffixed to the grade.

Marking: Company name and material designation, generic polymer identification, color number where appropriate, and batch or lot number or date of manufacture on container, wrapper or molded on finished part.

See General Information Preceding These Recognitions.

Small-scale test data does not pertain to building materials, furnishings and related contents. Small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

699748006

Underwriters Laboratories Inc.®

D11/0251459

日本帝人化成聚碳酸酯樹脂 POLYCARBONATE RESIN "TEIJIN PANLITE"

品名	型號	特長	比 重	透 光 率	電 氣 性 能	耐 熱 性	耐 腐 蝕 性	耐 磨 損 性	耐 火 性
			g/cm ³	%	kg/cm ²	°C	°C	mm	UL-94
高強度級 PANLITE	KV-2300Y (K-1300Y)	射出吹出射出片等用 透明	1.2	88	22,300	95	130℃	0.5~0.7	V-2
	KV-2300 (K-1300)	射出吹出射出片等用 琥珀色	1.2	88	22,300	95	130℃	0.5~0.7	V-2
	KV-2300Z (K-1300Z)	射出吹出射出片等用 琥珀色	1.2	88	22,300	95	130℃	0.5~0.7	V-2
	K-1300W	射出吹出射出片等用 琥珀色	1.2	88	22,300	95	130℃	0.5~0.7	V-2
中強度級 PANLITE	KV-1285 (K-1285)	押出片、射出片	1.2	88	22,400	95	130℃	0.5~0.7	V-2
	KV-1285ZC (K-1285ZC)	高強度押出射出片等 琥珀色	1.2	88	22,400	95	130℃	0.5~0.7	V-2
高強度級 PANLITE	LV-1250 (L-1250)	押出片、射出片	1.2	88	22,700	90	130℃	0.5~0.7	V-2
	LV-1250R (L-1250R)	高強度押出片等 琥珀色	1.2	88	22,700	90	130℃	0.5~0.7	V-2
	LV-1250Y (L-1250Y)	高強度押出片等 琥珀色	1.2	88	22,700	90	130℃	0.5~0.7	V-2
	LV-1250Z (L-1250Z)	高強度押出片等 琥珀色	1.2	88	22,700	90	130℃	0.5~0.7	V-2
	LV-1250W (L-1250W)	高強度押出片等 琥珀色	1.2	88	22,700	90	130℃	0.5~0.7	V-2
	LV-1250T (L-1250T)	高強度押出片等 琥珀色	1.2	88	22,700	90	130℃	0.5~0.7	V-2
	LV-1250W (L-1250W)	射出、旋轉成型等用 琥珀色	1.2	88	22,700	90	130℃	0.5~0.7	V-2
高強度級 PANLITE	LV-1250 (L-1250)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250R (L-1250R)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250Y (L-1250Y)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250Z (L-1250Z)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250W (L-1250W)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250T (L-1250T)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250W (L-1250W)	射出、旋轉成型等用 琥珀色	1.2	88	23,000	85	130℃	0.5~0.7	V-2
高強度級 PANLITE	LV-1250 (L-1250)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250R (L-1250R)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250Y (L-1250Y)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2
	LV-1250Z (L-1250Z)	押出片、射出片	1.2	88	23,000	85	130℃	0.5~0.7	V-2

◎ 以上表所列數據 僅供參考用

10. Coaxial Cable RG-178 Data Sheet

RG-178 Coaxial Cable Specification		
1. Cable Type	MIL – C – 17 / RG-178	
2. Impedance	50 ± 3 ohm	
3. Inner Conductor	Material	silver-coated cooper
	Conductor Numbers	7
	Conductor Size	0.102 mm
	Outer Diameter	0.3 mm
4. Dielectric Layer	Material	FEP
	Color	Clear
	Average Thickness	0.28 mm
	Diameter	0.86 mm
5. Braid (Shielding)	Material	silver-coated cooper
	Construction	16-3-0.1 mm
	Coverage	95 %
6. Outer Cover	Material	FEP
	Color	Brown
	Average Thickness	0.25 mm
	Diameter	1.80 ± 0.05 mm
7. V.S.W.R Testing (DC ~ 6GHz)	< 1.3	
8. Attenuation (dB / 100 meter)	100 MHz	46
	900 MHz	155
	1800 MHz	295
	2400 MHz	340
	5200 MHz	505
	6000 MHz	550
9. Capacitance	97 ± 3 (pF / meter)	
10. Maximum Power	30 dBm	
11. Spark Test	2.0 KV	
12. Rating Temp. and Voltage	200°C / 30V	
13. Conductor Resistance	335 ohm / KM / 20°C max.	
14. Dielectric Resistance	3 G ohm / KM / 20°C min.	

11. Reliability Testing on Antenna Body

Test Item	Procedure	Requirement
1. Visual inspection and dimension check	Applicable methods using x5 magnification	follow Specification
2. Rapid changing of temperature	-40°C (30minutes) to 90°C (30minutes); 120 cycles	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
3. Damp Heat	500 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
4. Endurance	500 hours at 90°C	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$

12. Ordering Information

Part Number: AN 2400 – 01 01 RS

Product Type

AN= Antenna

Frequency Code

2400= 2400 ~ 2500 MHz

Dimension Code

01= see the mechanical drawing page

Cable Code

01= RG-178

Connector Code

RS= SMA male reverse

0S= SMA male