

1. PART PHOTO (부품 사진)



No.	Part Name	Material	Color
1	X40 PRESS UWB	PHOSPHORUS BRONZE 0.2T	BROWN
2	X40 PRESS UWB	Ni 0.02T	SILVER
3	X40 PRESS TAPE	VHM 1.1T	BLACK

Rev.	DATE	Contents	Engineer	Approver
1	00-00-00	-	-	-
2	00-00-00	-	-	-

CODE : 421100001

MODEL : ANT UWB X40_UWB_antenna,X40,press type,0V1,KDT

NOTES

- 제품 외관상 흠집 및 부자연 현상이 없어야 함.
- 부품의 재료 및 색상과 설계 사양에 적합함.
- 생산 시 용도에 적합한 용도 및 용도에 적합함.
- 제품의 외관 및 성능에 문제가 없어야 함.
- * * * * * (CTF)에 적합함을 증명함.
- 이 기밀 및 자료 용도에 대한 규정은 "800768-01" 문헌 참조.
- 기밀 문서 (사명) 및 기밀 문서 참조.

NOTES

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- The material and color of parts must comply with the design specifications.
- When mass production, make sure to obtain approval before proceeding with production.
- The appearance inspection of this product shall be based on standard samples.
- Dimensions with "*" shall be applied as critical management (CTF) items.
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Manufacturer: KDT R&D Center
413ho, Dongtan-daero 23-gil, Hwaseong-si, Gyeonggi-do, Republic of Korea

4. 제품 특성 및 Spec.

4-1. 기구적 특성 Organizational characteristics

DIMENSION	6.2X4.0
ANTENNA - BASE	PHOSPHORUS BRONZE+ Ni
ANTENNA - PATTERN	PHOSPHORUS BRONZE
WEIGHT	0.05g
OPERATING TEMP	20 ± 5 °C
OPERATING HUMIDITY	55 ± 15 %

4-2. Normal Spec.

INPEDANCE	50 ohm
RADIATION PATTERN	Linear
POLARIZATION	Linear
POWER HANDLING	2W
MATCHING CIRCUIT	Refer to the circuit diagram

4-3. 전기적 특성(Frequency Band & Passive Spec.)

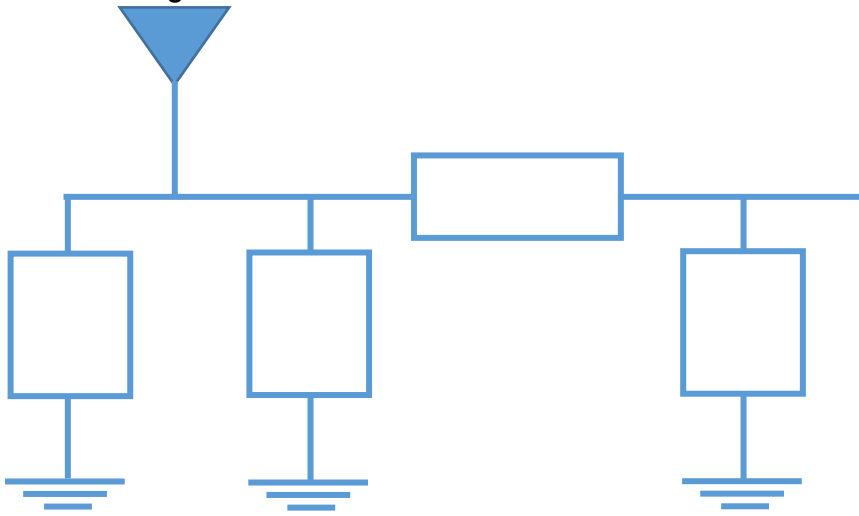
Mode	Set – Antenna		
Frequency	7500MHz	8000MHz	8500MHz
VSWR Spec.	1.9:1 이하	5.2:1 이하	2.3:1 이하
3D Gain Spec/	Peak 1.6dBi	Peak -04dBi	Peak 2.5dBi

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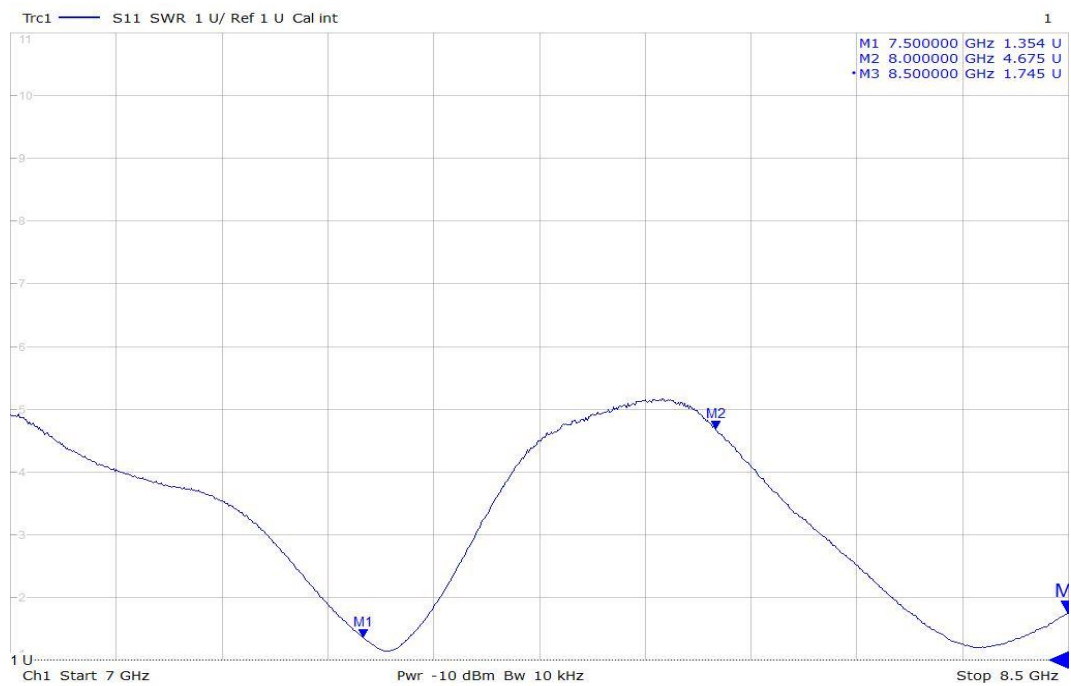
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5. 전기적 특성 Electrical characteristics

5-1. Matching Circuit



5-2. 전기적 특성(Frequency Band & Passive Spec.)



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6. 3D GAIN DATA

6-1. Efficiency

	1	2	3	4	5	6	7	8	9	10	11
Frequency [MHz]	7500	7600	7700	7800	7900	8000	8100	8200	8300	8400	8500
Efficiency [dB]	-4.44	-5.35	-6.19	-5.67	-5.36	-5.39	-5.67	-3.53	-8.01	-6.55	-5.74
Efficiency [%]	35.9	29.2	24.0	27.1	29.1	28.9	27.1	44.3	15.8	22.1	26.7
TRG _g [dB]	-6.68	-7.75	-9.11	-8.39	-7.95	-8.27	-9.03	-7.04	-11.07	-8.77	-6.89
Gain _{g Peak} [dB]	3.18	1.86	1.58	0.75	1.89	1.17	0.76	2.95	-2.09	1.23	4.03
Gain _{g Min} [dB]	-28.83	-38.50	-30.54	-37.16	-29.17	-28.64	-23.36	-33.84	-33.02	-24.38	-25.86
TRG _g [dB]	-8.40	-9.06	-9.30	-8.99	-8.83	-8.53	-8.36	-6.10	-10.98	-10.52	-12.06
Gain _{g Peak} [dB]	-0.22	-1.09	-1.78	-0.49	-0.58	0.29	1.11	4.15	-1.18	-1.22	-2.33
Gain _{g Min} [dB]	-26.93	-33.67	-29.34	-27.56	-29.34	-27.49	-33.01	-28.60	-32.13	-39.58	-37.01
UHRG [dB]	-9.37	-10.50	-11.07	-10.37	-9.90	-9.86	-10.55	-9.34	-13.84	-12.95	-12.61
UHRG/TRG [%]	32.2	30.5	32.5	33.9	35.2	35.7	32.6	26.2	26.2	22.9	20.6
H-Plane	-9.30	-10.17	-12.69	-12.26	-10.86	-11.19	-12.70	-9.36	-13.02	-11.85	-9.33
E1-Plane, AVG [dB]	-3.38	-4.80	-6.08	-5.54	-5.22	-6.04	-6.88	-5.22	-9.43	-7.61	-4.31
E2-Plane, AVG [dB]	-14.04	-14.45	-16.90	-13.76	-14.96	-12.78	-10.73	-10.86	-12.89	-11.12	-11.00
Peak Gain [dB]	3.24	2.06	1.79	0.96	2.01	1.18	1.52	5.03	-0.62	2.19	4.07
Directivity [dB]	7.69	7.41	7.99	6.63	7.37	6.57	7.19	8.57	7.40	8.74	9.82
Minimum Gain [dB]	-15.75	-29.33	-16.61	-17.52	-18.79	-19.66	-19.46	-20.28	-21.68	-21.19	-22.87
Test Condition	FS										
Antenna Type											
Average Efficiency	-5.50 dB 28.21 %										

6-2. Radiation Pattern

