

SPECIFICATIONS

PRODUCT NAME : WLAN Single Bands ANT

MODEL NAME : TWFM-K311D External Antenna

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Designed	Checked	Approved	LG Innotek Co., Ltd.	
S.W. Oh	S.H. LEE	S.D. Choi		
			DOCUMENT No.	
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REG. DATE : 2014.09.29

S P E C I F I C A T I O N

REV.NO : 0.1

REV. DATE : 2014.09.29

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Change History of Revision

Revision	Date	Contents of Revision Change	Remark
0.1	2014.09.29	Wi-Fi Single Bands ANT Spec	S.W. Oh



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1. ANT Features

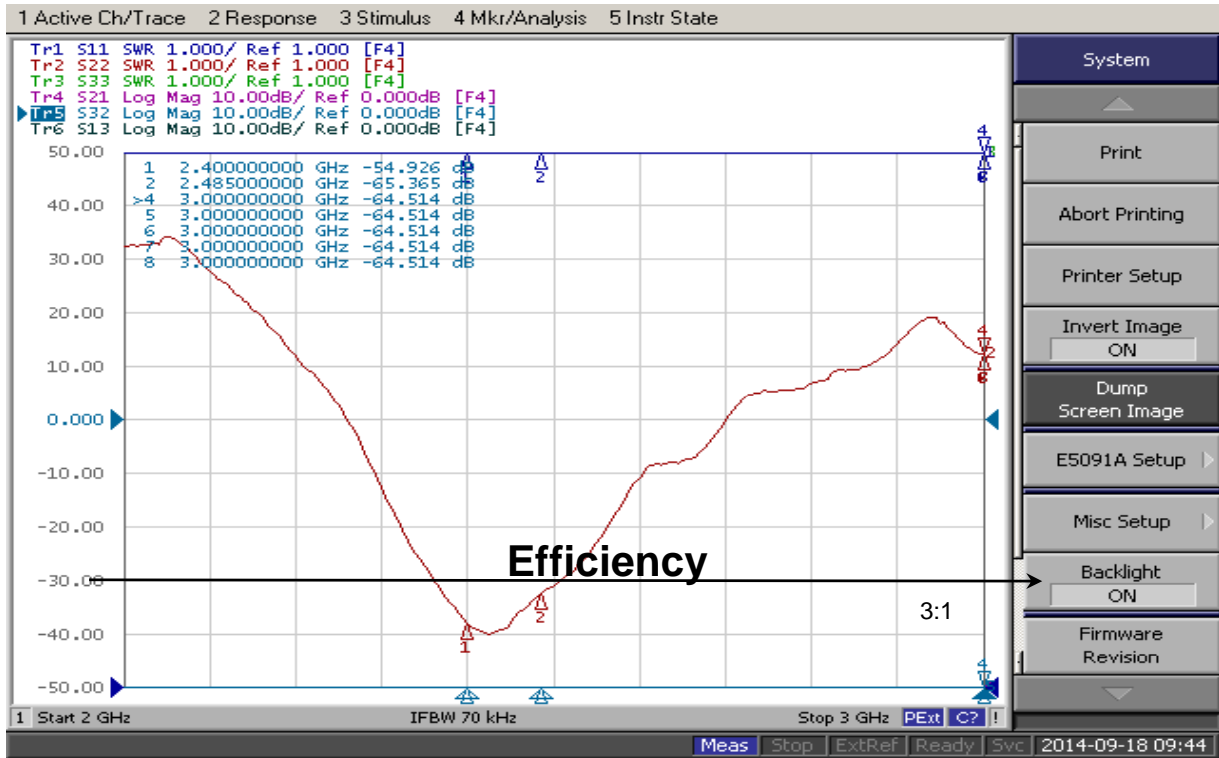
- Single Bands Wi-Fi ANT
- Main Frequency: 2.45GHz
- Frequency range
: From 2.40 to 2.50GHz
- Operating temperature range
: -35 to +95°C (typ.)
- ANT Size (34 x 6.6 x 6.4mm)
- Cable length : 420mm

2. Antenna Characteristics

Antenna Performance				
Parameter	Min	Typ	Max	Unit
Frequency Range	2400	2440	2485	MHz
Directivity	-	Omni	-	-
Average Gain	- 6.0	-	-	dBi
Peak Gain	-	-	0.8	
V.S.W.R	-	-	3.0	Under
Impedance		50		Ohm
Radiation Material		Sus, Ni		



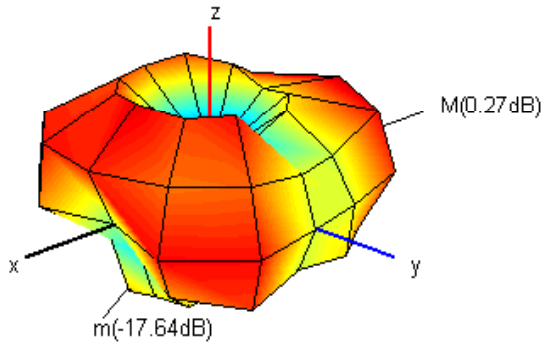
2.1 Network data (VSWR)



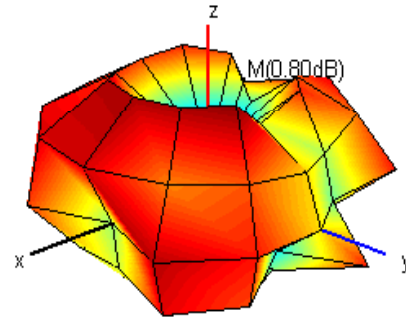
2.2 Efficiency

	1	2	3	4	5	6	7	8	9	10
Frequency(MHz)	2412	2420	2430	2440	2445	2450	2460	2470	2480	2485
Efficiency(dB)	-5.30	-5.20	-5.08	-4.91	-4.83	-4.06	-4.40	-4.21	-4.12	-4.20
Efficiency(%)	29.48	30.22	31.05	32.26	32.85	39.23	36.29	37.96	38.75	37.99
TRG(dB)	-5.30	-5.20	-5.08	-4.91	-4.83	-4.06	-4.40	-4.21	-4.12	-4.20
TRG _{Tnet} (dB)	-7.53	-7.50	-7.48	-7.46	-7.44	-7.28	-7.21	-7.08	-7.06	-7.18
TRG _{Ph} (dB)	-9.28	-9.05	-8.80	-8.44	-8.29	-6.88	-7.62	-7.36	-7.19	-7.25
UHRG(dB)	-7.19	-7.07	-6.93	-6.75	-6.66	-5.96	-6.24	-6.05	-5.99	-6.09
UHRG/TRG(%)	64.81	64.98	65.36	65.54	65.62	64.58	65.51	65.43	65.03	64.74
H-Plane	-7.19	-7.19	-7.29	-7.41	-7.44	-7.32	-7.33	-7.30	-7.31	-7.44
E1-Plane, AVG(dB)	-7.16	-7.08	-7.00	-6.95	-6.90	-6.80	-6.67	-6.49	-6.38	-6.46
E2-Plane, AVG(dB)	-10.04	-9.88	-9.63	-9.34	-9.18	-8.88	-8.63	-8.37	-8.28	-8.38
Peak Gain(dB)	0.27	0.42	0.39	0.12	-0.14	0.80	0.08	0.30	0.41	0.25
Directivity(dB)	5.57	5.62	5.47	5.03	4.69	4.86	4.48	4.51	4.53	4.46
Minimum Gain(dB)	-17.64	-18.91	-18.74	-17.07	-17.78	-17.33	-18.29	-17.55	-16.95	-16.36
Test Condition	FS									
Antenna Type										
Average Efficiency	-4.61 dB,		34.61 %							

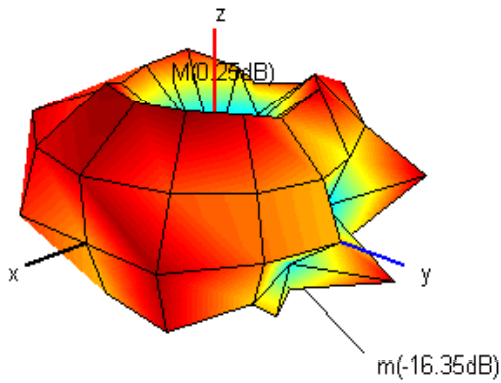
2.3 Radiation pattern



<2.412GHz>



<2.45GHz>



<2.485GHz>



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3. ANT Dimensions

