

Pattern (BT) Antenna Data Sheet

- Model : D-Audio2.0V -

- Application Frequency -	
	Band [MHz]
BT	2400 ~ 2485

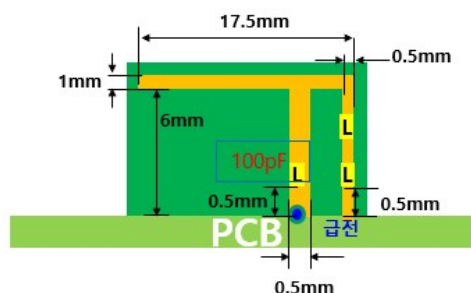
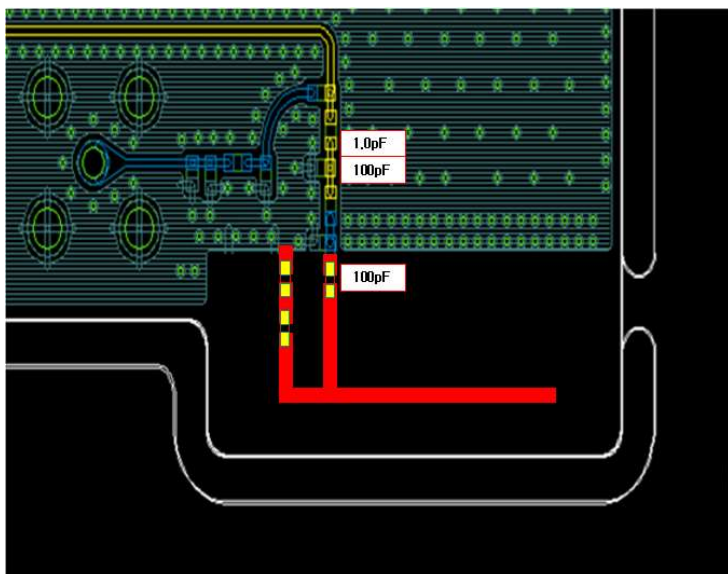
Pattern Antenna



GENERAL FEATURES

Part number	D-Audio2.0V
Antenna type	PCB Pattern ANT
Applications	Bluetooth

ANTENNA INFORMATION



ANTENNA RF SPECIFICATIONS

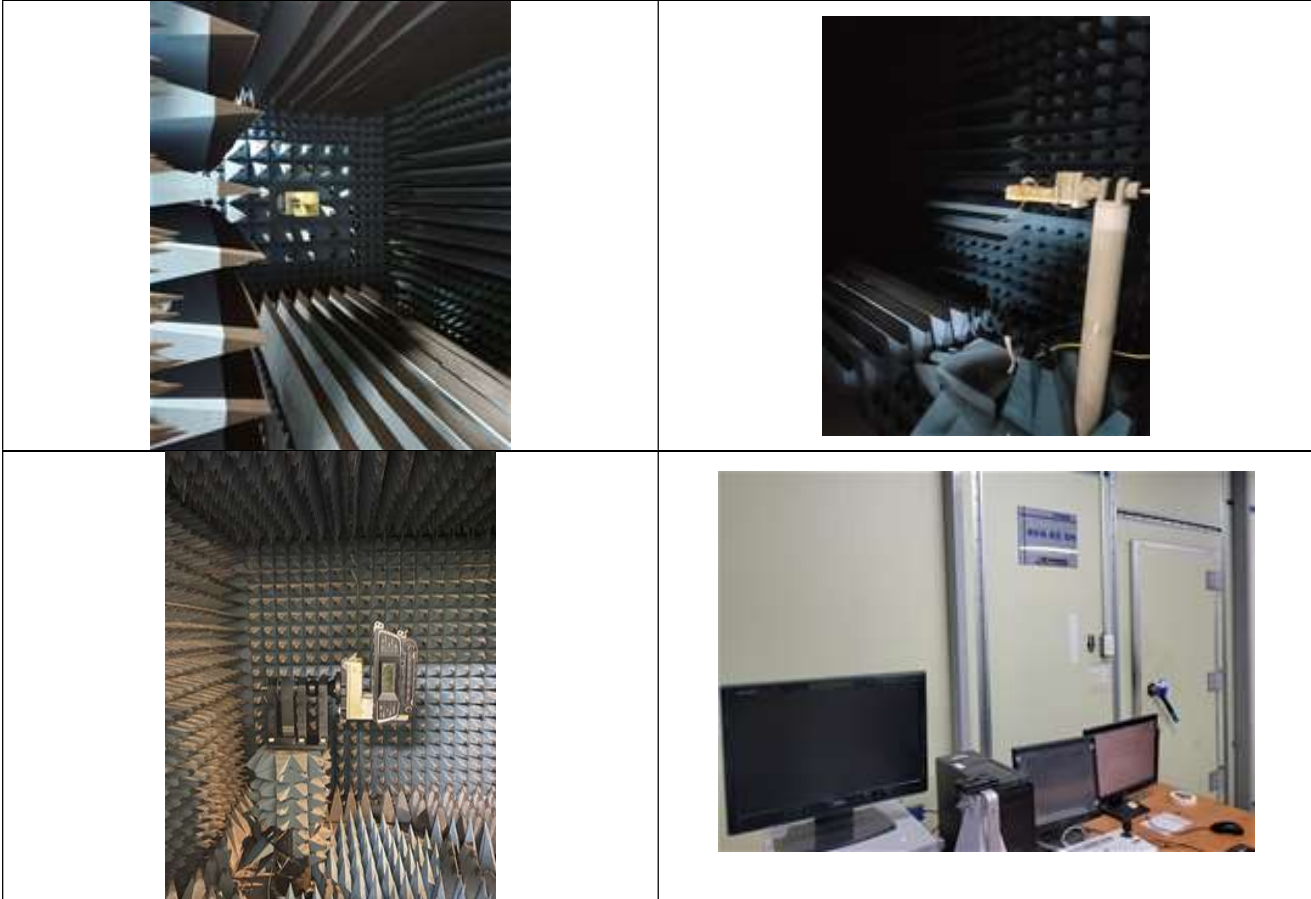
Item	Specification			
Frequency Range [MHz]	2400 ~ 2485			
VSWR [Max]	3:1			
Bandwidth [MHz]	85			
Impedance	50Ω			
Polarization	Linear			
	Freq. [MHz]	2400	2445	2485
Gain – Azimuth		-5.54	-5.74	-5.95
Gain – Elevation 1		-4.58	-4.88	-4.48
Gain – Elevation 2		-6.18	-6.75	-6.13
Gain – 3D		-5.89	-5.18	-5.48

Pattern Antenna

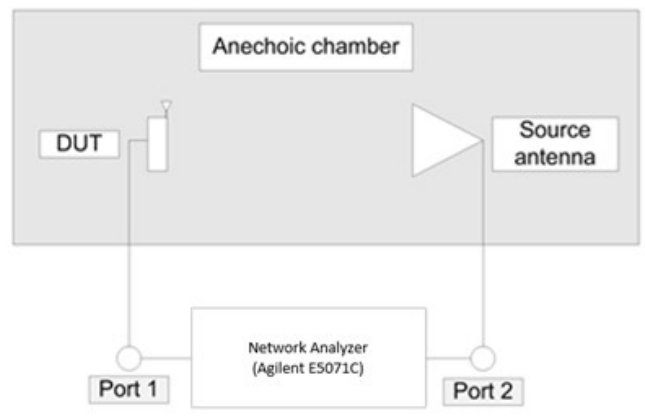


TEST ENVIRONMENT AND METHOD

TEST ENVIRONMENT



TEST METHOD



Pattern Antenna



TEST EQUIPMENT

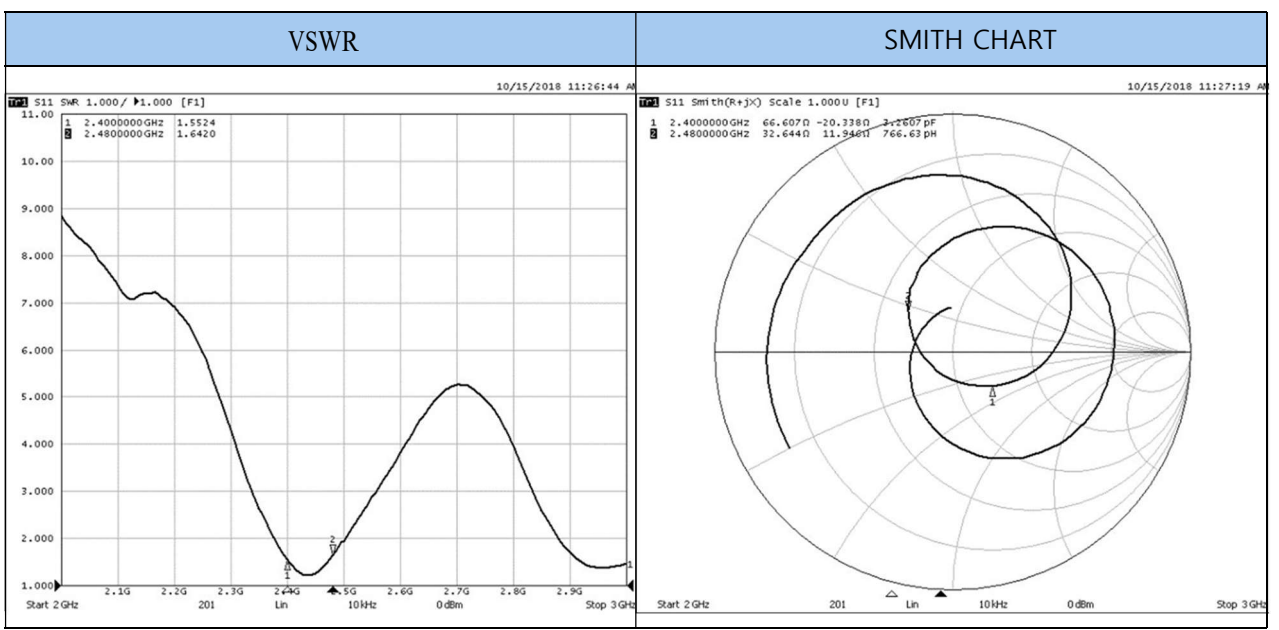
TEST EQUIPMENT



ELECTRICAL CHARACTERISTICS

No.	Freq.	Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta[°]	Phi[deg]	H(Theta=)	Phi[deg]	BW[deg]	E1(Phi=0)	Peak[dBi]	Theta[°]	BW[deg]	E2(Phi=90)	Peak[dBi]	Theta[°]	BW[deg]	
1	2400.000	35.39	-4.51	-2.21	60.00	270.00	-4.25	-3.39	270.00	47.74	-6.65	-2.82	-30.00	34.66	-3.02	-2.21	-60.00	76.78
2	2425.000	44.83	-3.48	-0.18	45.00	255.00	-2.98	-3.41	255.00	49.95	-5.25	-2.18	-30.00	59.76	-3.11	-3.00	-60.00	86.19
3	2445.000	33.21	-4.79	-2.16	45.00	255.00	-4.05	-3.50	255.00	50.87	-6.24	-2.66	0.00	51.20	-2.73	-2.55	-45.00	91.37
4	2465.000	31.43	-5.03	-2.60	45.00	255.00	-4.13	-3.10	255.00	62.43	-6.30	-3.82	-135.00	24.47	-3.67	-3.63	-45.00	96.12
5	2485.000	30.73	-5.12	-2.78	45.00	255.00	-4.27	-3.12	240.00	60.70	-6.14	-3.23	-135.00	26.57	-4.22	-4.12	-45.00	99.41

MEASUREMENT

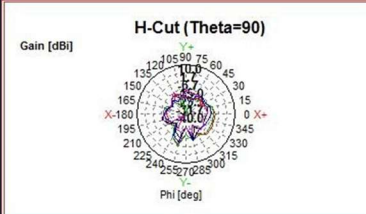
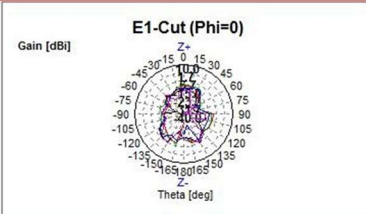
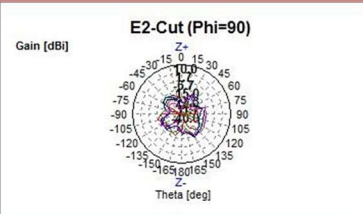


Pattern Antenna



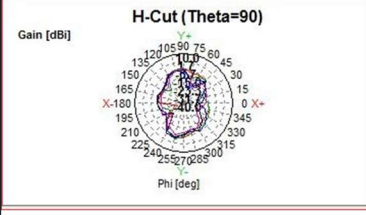
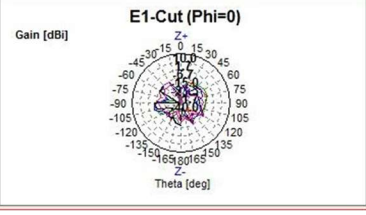
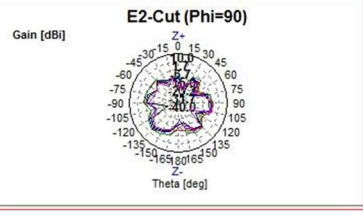
RADIATION PATTERN

Theta

No.	Freq.	Theta-Pi			Theta[°]	Phi[deg]	H(Theta=90)				E1(Phi=0)				E2(Phi=90)			
		Eff.[%]	Avg.[dBi]	Peak[dBi]			Avg.[dBi]	Peak[dBi]	Phi[deg]	BW[deg]	Avg.[dBi]	Peak[dBi]	Theta[°]	BW[deg]	Avg.[dBi]	Peak[dBi]	Theta[°]	BW[deg]
1	2400.000	23.96	-6.21	-2.19	90.00	270.00	-5.77	-5.19	270.00	44.46	-11.13	-7.01	60.00	41.78	-2.64	-2.28	-90.00	77.28
2	2425.000	31.02	-5.08	-1.16	90.00	270.00	-4.33	-5.16	270.00	45.87	-10.29	-6.08	165.00	20.03	-1.73	-1.50	-90.00	84.97
3	2445.000	22.73	-6.43	-3.10	90.00	255.00	-5.48	-5.10	255.00	45.23	-11.45	-7.69	-75.00	41.96	-3.42	-3.34	-45.00	88.71
4	2465.000	21.00	-6.78	-4.34	90.00	255.00	-5.61	-5.56	255.00	51.53	-10.65	-6.34	105.00	34.50	-4.48	-4.34	-45.00	91.14
5	2485.000	20.42	-6.90	-5.02	90.00	240.00	-5.42	-5.02	240.00	56.55	-10.34	-6.56	-75.00	39.04	-5.14	-5.02	-90.00	103.12

Phi

No.	Freq.	Phi-Pol[°]	Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta[°]	Phi[deg]	H(Theta=90)				E1(Phi=0)				E2(Phi=90)			
								Avg.[dBi]	Peak[dBi]	Phi[deg]	BW[deg]	Avg.[dBi]	Peak[dBi]	Theta[°]	BW[deg]	Avg.[dBi]	Peak[dBi]	Theta[°]	BW[deg]
1	2400.000		11.43	-9.42	-3.44	30.00	165.00	-9.55	-4.94	315.00	39.43	-8.56	-3.80	-30.00	34.10	-10.83	-6.77	-60.00	43.62
2	2425.000		13.81	-8.60	-3.67	30.00	165.00	-8.73	-4.63	315.00	41.27	-6.88	-3.88	-30.00	53.24	-9.67	-6.80	-60.00	58.56
3	2445.000		10.48	-9.80	-3.62	0.00	0.00	-9.55	-4.65	315.00	43.85	-7.80	-3.62	0.00	30.38	-11.07	-6.55	-45.00	63.16
4	2465.000		10.43	-9.82	-3.56	120.00	210.00	-9.52	-4.78	210.00	55.33	-8.28	-3.85	0.00	63.71	-11.33	-6.01	-45.00	57.67
5	2485.000		10.31	-9.87	-3.20	120.00	210.00	-10.64	-6.25	210.00	60.64	-8.23	-3.98	-45.00	56.98	-11.41	-6.94	-45.00	55.74

Pattern Antenna



Pattern (WiFi) Antenna Data Sheet

- Model : D-Audio2.0V -

- Application Frequency -	
	Band [MHz]
WiFi	2400 ~ 2485
	5150 ~ 5850

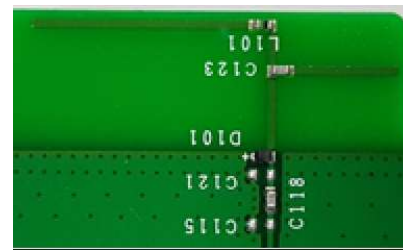
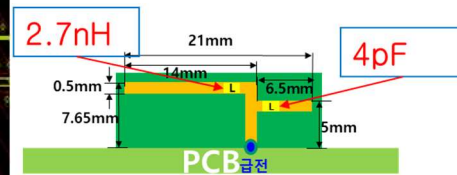
Pattern Antenna



GENERAL FEATURES

Part number	D-Audio2.0V
Antenna type	PCB Pattern ANT
Applications	WiFi

ANTENNA INFORMATION



ANTENNA RF SPECIFICATIONS

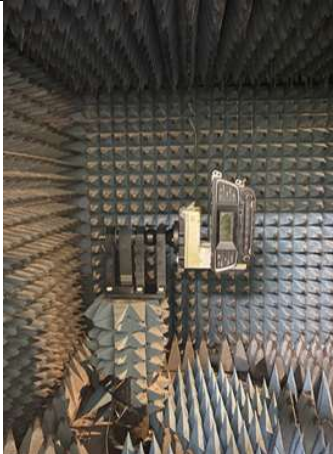
Item	Specification					
Frequency Range [MHz]	2400 ~ 2485,					
VSWR [Max]	3:1					
Bandwidth [MHz]	85(2.4GHz), 150(5GHz)					
Impedance	50Ω					
Polarization	Linear					
Freq. [MHz]	2400	2445	2485	5150	5485	5850
Gain – Azimuth	-5.54	-5.74	-5.95	-5.88	-5.94	-5.65
Gain – Elevation 1	-4.58	-4.88	-4.48	-4.88	-5.15	-5.24
Gain – Elevation 2	-6.18	-6.75	-6.13	-6.15	-6.34	-6.24
Gain – 3D	-5.89	-5.18	-5.48	-5.57	-5.12	-5.11

Pattern Antenna

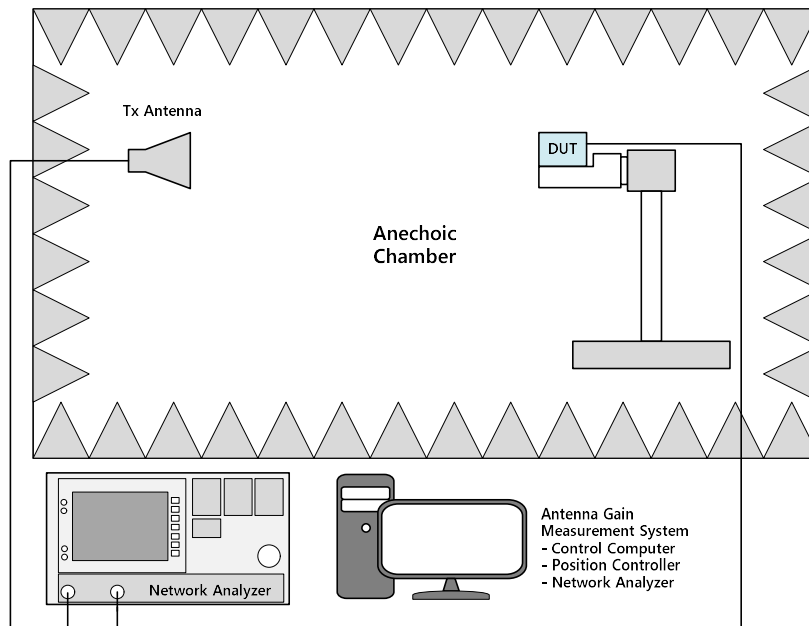


TEST ENVIRONMENT AND METHOD

TEST ENVIRONMENT



TEST METHOD



Pattern Antenna



TEST EQUIPMENT

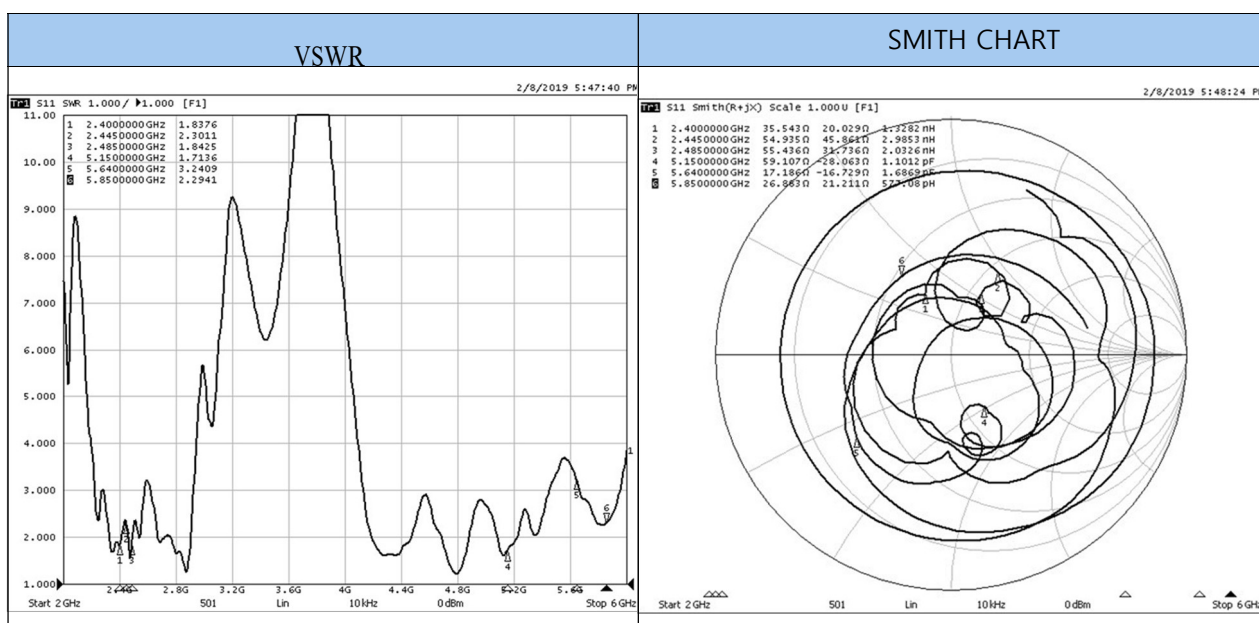
TEST EQUIPMENT



ELECTRICAL CHARACTERISTICS

No.	Freq.	PwrSum	Eff.[%]	Avg[dBi]	Peak[dBi]	Theta[°]	Phi[deg]	H(Theta=)	Avg[dBi]	Peak[dBi]	Phi[deg]	BW[deg]	E1(Phi=0)	Avg[dBi]	Peak[dBi]	Theta[°]	BW[deg]	E2(Phi=90)	Avg[dBi]	Peak[dBi]	Theta[°]	BW[deg]
1	2400.000	23.67	-6.26	-1.26	75.00	285.00		-7.02	-3.71	285.00	26.33		-7.25	-3.43	30.00	58.02		-7.18	-5.41	-15.00	34.12	
2	2425.000	30.64	-5.14	-0.62	150.00	135.00		-6.56	-3.40	285.00	25.45		-6.29	-2.42	30.00	63.56		-5.90	-5.68	-30.00	37.19	
3	2445.000	36.76	-4.35	-0.01	150.00	120.00		-6.23	-3.21	285.00	24.97		-5.45	-4.33	30.00	69.60		-4.82	-4.74	45.00	35.25	
4	2465.000	26.66	-5.74	-0.43	150.00	120.00		-7.87	-3.86	285.00	23.67		-6.77	-4.60	30.00	59.90		-5.74	-4.30	165.00	24.56	
5	2485.000	26.47	-5.77	-0.04	150.00	120.00		-8.15	-2.57	285.00	22.42		-6.71	-4.68	30.00	53.39		-5.11	-4.42	165.00	23.80	
6	5150.000	30.90	-5.10	-0.61	30.00	255.00		-7.34	-3.42	285.00	78.13		-7.06	-3.20	15.00	55.74		-3.19	-3.10	-45.00	61.41	
7	5300.000	33.90	-4.70	-0.18	45.00	240.00		-6.97	-2.20	285.00	74.62		-6.34	-4.12	15.00	66.07		-3.26	-2.97	-30.00	56.71	
8	5640.000	41.42	-3.83	-0.77	45.00	255.00		-5.44	-2.34	255.00	69.49		-5.04	-4.90	-30.00	33.78		-3.21	-2.46	-45.00	67.53	
9	5745.000	36.08	-4.43	-0.96	30.00	225.00		-5.74	-3.02	240.00	35.06		-5.60	-4.22	-30.00	42.00		-4.05	-3.67	-60.00	70.68	
10	5785.000	29.47	-5.31	-0.18	30.00	225.00		-6.63	-2.82	150.00	36.20		-6.21	-2.54	-30.00	43.00		-5.11	-4.47	-45.00	69.74	
11	5825.000	28.75	-5.41	-0.44	30.00	225.00		-6.83	-2.43	150.00	30.10		-5.98	-2.18	-30.00	50.25		-5.50	-4.21	-45.00	66.95	

MEASUREMENT



Pattern Antenna



RADIATION PATTERN

H-Cut (Theta=90)

E1-Cut (Phi=0)

E2-Cut (Phi=90)

No.	Freq.	Theta-Pol	Eff. [%]	Avg. [dBi]	Peak [dBi]	Theta [c]	Phi [deg]	H(Theta=0)	E1(Phi=0)	E2(Phi=90)
1	2400.000	12.88	-8.90	-3.05	120.00	300.00	-10.11	-3.25	285.00	21.43
2	2425.000	16.91	-7.72	-4.10	105.00	225.00	-9.30	-4.67	285.00	22.53
3	2445.000	20.87	-6.80	-4.02	60.00	105.00	-8.44	-5.14	300.00	22.75
4	2465.000	15.51	-8.09	-3.43	30.00	15.00	-9.85	-4.60	300.00	24.47
5	2485.000	15.46	-8.11	-3.87	30.00	0.00	-10.25	-5.56	255.00	16.79
6	5150.000	11.91	-9.24	-3.52	15.00	210.00	-10.55	-4.49	315.00	10.35
7	5300.000	14.60	-8.36	-3.29	30.00	195.00	-11.23	-5.99	135.00	18.12
8	5640.000	18.41	-7.35	-3.59	30.00	195.00	-9.14	-4.38	135.00	21.60
9	5745.000	15.45	-8.11	-4.17	30.00	210.00	-9.22	-4.51	300.00	28.99
10	5785.000	12.62	-8.99	-3.21	30.00	210.00	-10.07	-4.63	300.00	25.51
11	5825.000	12.37	-9.08	-3.51	30.00	210.00	-10.19	-4.80	300.00	30.73

H-Cut (Theta=90)

E1-Cut (Phi=0)

E2-Cut (Phi=90)

No.	Freq.	Phi-Pol	Eff. [%]	Avg. [dBi]	Peak [dBi]	Theta [c]	Phi [deg]	H(Theta=0)	E1(Phi=0)	E2(Phi=90)
1	2400.000	10.78	-9.67	-2.32	135.00	150.00	-9.95	-3.37	330.00	26.29
2	2425.000	13.73	-8.62	-3.01	150.00	150.00	-9.86	-4.31	285.00	61.84
3	2445.000	15.89	-7.99	-2.85	150.00	135.00	-10.24	-3.36	285.00	20.36
4	2465.000	11.15	-9.53	-4.46	150.00	135.00	-12.23	-5.14	285.00	16.80
5	2485.000	11.01	-9.58	-4.91	15.00	135.00	-12.30	-5.18	285.00	13.09
6	5150.000	18.99	-7.21	-3.32	30.00	255.00	-10.16	-4.04	285.00	61.50
7	5300.000	19.29	-7.15	-2.97	45.00	255.00	-9.01	-4.70	285.00	43.46
8	5640.000	23.01	-6.38	-2.87	30.00	255.00	-7.86	-4.73	240.00	54.04
9	5745.000	20.63	-6.85	-4.50	30.00	255.00	-8.33	-4.59	240.00	15.61
10	5785.000	16.85	-7.74	-3.56	30.00	255.00	-9.25	-4.89	150.00	23.73
11	5825.000	16.38	-7.86	-3.29	30.00	255.00	-9.52	-4.53	150.00	23.59