



KBT 12 Ports 2L+8T8R(3842) BF1.5m Antenna

KB65D75D0742A12-15D16F-I-W

Electrical Specifications				
Frequency Range (MHz)	2 × (690–960) (R1, R2)			
	690-803	791-862	880-960	
Polarization	±45°			
Electrical Downtilt (°)	2-12, Independently continuously adjustable			
Gain (dBi)	at mid Tilt	13.8	14.2	14.6
	over all Tilts	13.7±0.5	14.1±0.5	14.5±0.5
Side lobe suppression for first side lobe above main beam (dB)	>16	>16	>16	>16
Horizontal 3dB Beam Width (°)	67±5	65±5	63±5	63±5
Vertical 3dB Beam Width (°)	15.0±1.0	13.8±1.0	12.4±0.8	12.4±0.8
Cross-Polar Ratio, 0° (dB)	>18	>18	>18	>18
Front to Back Ratio, ±30° (dB)	>22	>22	>22	>22
VSWR	≤1.5			
Intermodulation IM3 (dBc)	≤-153 (2x 43 dBm carrier)			
Cross Polar isolation (dB)	≥25			
Interband isolation (dB)	≥25 (R1, R2)			
Max. power per port (W)	250			
Impedance (Ω)	50			
Grounding	DC Grounding			
Values based on NGMN recommendations on Base Station Antenna Standards 12.0 (BASTA 12.0)				

General Electrical Properties			
General parameters	Frequency Range (MHz)	3300-4200 (P1)	
		3300-3800	3800-4200
	Polarization	±45°	
	Electrical Downtilt (°)	2-12, continuously adjustable	
	Electrical Downtilt tolerance (°)	±1	
	Max. power per port (W)	50 (at 50°C ambient temperature)	
	Impedance (Ω)	50	
Grounding	DC Grounding		
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port (dB)	-26±2	-26±2
	Max. amplitude tolerance from calibration port to input ports (dB)	0.8	0.9
	Max. phase tolerance from calibration port to input ports (°)	7	7
	VSWR	≤1.5	≤1.5
	Co-polarization isolation between ports (dB)	≥20	≥20
	Cross-polarization isolation between ports (dB)	≥24	≥24

Add: No.30 Dongyang 3rd Road, Danzao Town, Nanhai District, Foshan City, Guangdong, China 528216

Tel: +86-757-88022860

Email: kbt@kenbotong.com

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TDD LTE Electrical Specifications				
	Frequency Range (MHz)		3300-4200 (P1)	
			3300-3800	3800-4200
Radiation parameters	Single column beam	Gain (dBi)	15.5±0.7	16±0.6
		Horizontal 3dB Beam Width (°)	85±15	75±15
		Front to Back Ratio (dB)	>24	>23
		Cross-Polar Ratio, 0° (dB)	>18	>18
		Vertical 3dB Beam Width (°)	6.0±0.6	5.5±0.7
		Side lobe suppression for first side lobe above main beam (dB)	>16	>16
	65° Broadcast beam	Gain (dBi)	16.8±0.8	17.2±0.8
		Horizontal 3dB Beam Width (°)	65	65
		Front to Back Ratio (dB)	>25	>25
		Vertical 3dB Beam Width (°)	6.0±0.6	5.5±0.7
		Side lobe suppression for first side lobe above main beam (dB)	>16	>16
	Service beam	0° direction Beam Gain (dBi)	20.6±0.6	21.2±0.6
		0° direction Beam Horizontal 3dB Beam Width (°)	25	23
		0° direction Beam horizontal side lobe suppression (dB)	>30	>30
		0° direction Beam Front to Back Ratio, ±30° (dB)	>18	>18

5G NR Electrical Specifications				
	Frequency Range (MHz)		3300-4200 (P1)	
			3300-3800	3800-4200
Radiation parameters	Single column beam	Gain (dBi)	15.5±0.7	16±0.6
		Horizontal 3dB Beam Width (°)	85±15	75±15
		Front to Back Ratio (dB)	>24	>23
		Cross-Polar Ratio, 0° (dB)	>18	>18
		Vertical 3dB Beam Width (°)	6.0±0.6	5.5±0.7
		Side lobe suppression for first side lobe above main beam (dB)	>16	>16
	NR Broadcast beam	Gain (dBi)	19.2±0.8	19.7±0.8
		Horizontal 3dB Beam Width (°)	65	65
		Front to Back Ratio (dB)	>25	>25
		Vertical 3dB Beam Width (°)	6.0±0.6	5.5±0.7
		Side lobe suppression for first side lobe above main beam (dB)	>16	>16
	NR Service beam	0° direct Beam Gain (dBi)	20.6±0.6	21.2±0.6
		0° direct Beam Horizontal 3dB Beam Width (°)	25	23
		0° direct Beam Front to Back Ratio, ±30° (dB)	>30	>30
		0° direct Beam Cross-Polar Ratio, 0° (dB)	>18	>18

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Mechanical Specifications	
RET type	Integrated RET (AISG2.0/3GPP)
AISG Connectors (1 in 1 out)	2 x 8 pin (in: Male; out: Female)
Connector	4 x 4.3-10 Female, 1 x (MQ4 + MQ5) Male, Bottom
Antenna dimensions (H x W x D) (mm)	1485 x 500 x 160
Packing dimensions (H x W x D) (mm)	1785 x 615 x 290
Antenna weight (kg)	26
Clamps weight (kg)	6
Diameter of installation pole (mm)	φ50-φ110
Radome material	Fiberglass
Radome color	Light grey
Operational temperature (°C)	-40 to +70
Wind load at 42m/s (N)	1097/ 278/ 1097 (Frontal/ Lateral/ Rearal)
Max. operational wind speed (km/h)	200

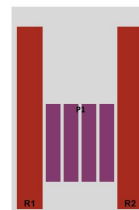
Layout and Pattern

Connector Position:



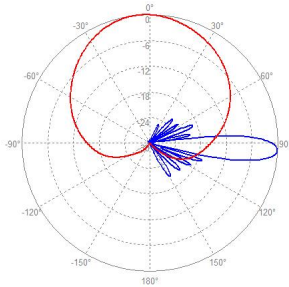
R1/ R2: 690-960 MHz;
P1: 3300-4200 MHz;

Configuration Types:

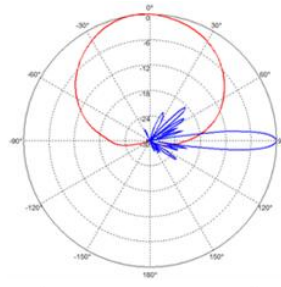


RET S/N:
KBxxx-R1-xx.....;
KBxxx-R2-xx.....;
KBxxx-P1-xx.....;

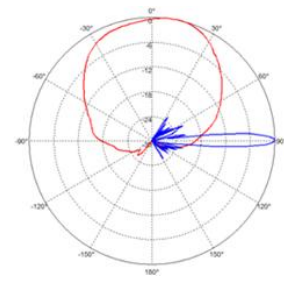
Pattern sample for reference:



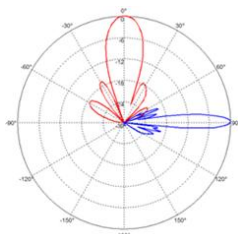
R1/ R2: 690-960 MHz



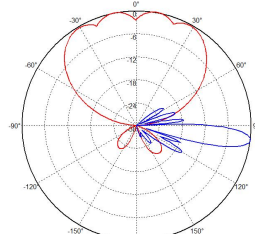
Single column
P1: 3300-4200 MHz



65° Broadcast
P1: 3300-4200 MHz



Service Beam (0°)
P1: 3300-4200 MHz



5G NR Broadcast
P1: 3300-4200 MHz

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