



KBT 20 Ports 2L+8T8R(1721)+8T8R(2327) BF 2.0m Antenna

KB65D90D0727A20-15D15F16F-I-W

Electrical Specifications

Frequency Range(MHz)	2*(690 – 960) (R1,R2)	
	703-803	880-960
Polarization	±45	
Electrical Downtilt(°)	2-12, Independently continuously adjustable	
Gain (dBi)	at mid Tilt	14.8
	over all Tilts	14.7±0.6
Side lobe suppression for first side lobe above main beam (dB)	>15	>15
Horizontal 3dB Beam Width (°)	65±7	58±7
Vertical 3dB Beam Width(°)	11.5±0.8	9.3±0.7
Cross-Polar Ratio , 0°(dB)	>18	>18
Front to Back Ratio,±30° (dB)	>21	>22
VSWR	≤ 1.5	
Intermodulation IM3 (dBc)	≤-150 (2 x 43 dBm carrier)	
Cross Polar isolation (dB)	≥ 25(R1,R2);	
Interband isolation (dB)	≥ 25	
Max. power per port(W)	250 (R1,R2);	
Impedance (Ω)	50	
Grounding	DC Ground	
Values based on NGMN recommendations on Base Station Antenna Standards V12.0(BASTA V12.0)		

General Electrical Properties

General parameters	Frequency Range(MHz)	4*(1710 – 2170) (B1, B2, B3, B4)
		1710-2170
	Polarization	±45
	Electrical Downtilt(°)	2-12, continuously adjustable
	Electrical downtilt tolerance(°)	±1
	Max. power per unit(W)	50(at 50°C ambient temperature)
	Impedance(Ω)	50
Grounding	DC Ground	
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port(dB)	-26±2
	Max. amplitude tolerance from calibration port to input ports(dB)	0.9
	Max. phase tolerance from calibration port to input ports(°)	8
	VSWR	≤ 1.5
	Co-polarization isolation between ports(dB)	≥ 20
	Cross-polarization isolation between ports(dB)	≥ 23

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Electrical Specifications			
Radiation parameters	Frequency Range(MHz)		4*(1710 – 2170) (B1, B2, B3, B4)
			1710-2170
	Single column beam	Gain(dBi)	15.0±0.6
		Horizontal 3dB Beam Width(°)	90±10
		Front to back ratio (dB)	> 25
		Cross-Polar Ratio, 0°(dB)	> 17
		Vertical 3dB Beam Width(°)	9.7±0.5
		Side lobe suppression for first side lobe above main beam (dB)	> 16
	NR Broadcast beam	Gain(dBi)	20.2±0.6
		Horizontal 3dB Beam Width(°)	65
		Front to back ratio (dB)	> 25
		Vertical 3dB Beam Width(°)	9.7±0.6
		Side lobe suppression for first side lobe above main beam (dB)	> 15
	Service beam	Gain(dBi)	20.2±0.6
		Horizontal 3dB Beam Width(°)	26
		Front to back ratio (dB)	> 30
		Cross-Polar Ratio, 0°(dB)	> 20
		Beam Isolation (dB)	> 20
	Soft split multi-beam	Gain (dBi)	19.2±0.6
		Horizontal 3dB Beam Width(°)	30
Front to back ratio (dB)		> 30	
Cross-Polar Ratio, 0°(dB)		> 20	

General Electrical Properties		
		2300-2690 (Y1)
General parameters	Frequency Range(MHz)	2300-2690
	Polarization	±45
	Electrical Downtilt(°)	2-12, continuously adjustable
	Electrical downtilt tolerance(°)	±1
	Max. power per unit(W)	50(at 50°C ambient temperature)
	Impedance(Ω)	50
	Grounding	DC Ground
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port(dB)	-26±2
	Max. amplitude tolerance from calibration port to input ports(dB)	0.9
	Max. phase tolerance from calibration port to input ports(°)	7
	VSWR	≤ 1.5
	Co-polarization isolation between ports(dB)	≥ 20
	Cross-polarization isolation between ports(dB)	≥ 23

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TDD LTE Electrical Specifications			
Radiation parameters	Frequency Range(MHz)		2300-2690
	Single column beam	Gain(dBi)	16.0±0.6
		Horizontal 3dB Beam Width (°)	90±10
		Front to back ratio (dB)	>24
		Cross-Polar Ratio, 0°(dB)	>16.0
		Vertical 3dB Beam Width(°)	6.2±0.6
		Side lobe suppression for first side lobe above main beam (dB)	>16
	65° Broadcast beam	Gain(dBi)	17.2±0.8
		Horizontal 3dB Beam Width(°)	65±15
		Front to back ratio (dB)	>25
		Vertical 3dB Beam Width(°)	6.0±0.6
		Side lobe suppression for first side lobe above main beam (dB)	>15
	Service beam	0° direct Beam Gain(dBi)	21.0±0.6
		0° direct Beam Horizontal 3dB Beam Width(°)	26
		Front to back ratio (dB)	>30
		0° direct Beam Cross-Polar Ratio, 0°(dB)	>18
	Soft split multi-beam	Gain (dBi)	19.2±0.6
		Horizontal 3dB Beam Width(°)	30
		Front to back ratio (dB)	> 30
		Cross-Polar Ratio, 0°(dB)	> 20

Mechanical Specifications	
RET type	Integrated RET (AISG2.0/3GPP)
AISG Connectors (2 in 2 out)	4x8 pin (in: Male; out: Female)
Connector	4x 4.3-10 Female, 2 x (MQ4+MQ5), Bottom
Passive Antenna dimensions (H x W x D) (mm)	2100 x 469 x 185
Packing dimensions (H x W x D) (mm)	2400 x 585 x 320
Antenna weight (kg)	38
Clamps weight (kg)	6.8
Diameter of installation pole(mm)	φ50-φ125
Radome material	Fiberglass
Radome color	Light grey
Operational temperature (°C)	-40 to +70
Wind load at 42m/s (N)	1186/461/1186 (Frontal/Lateral/Rearal)
EOS/EUL	5 / 10 years
Max. operational wind speed (km/h)	200

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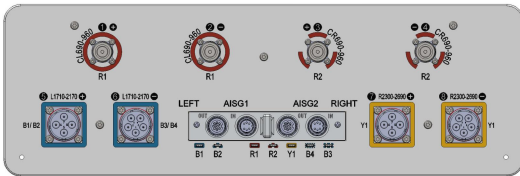
Web: <http://www.kenbotong.com>



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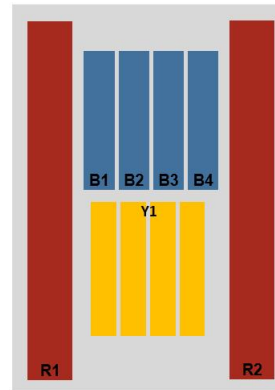
Layout and Pattern

Connector Position:



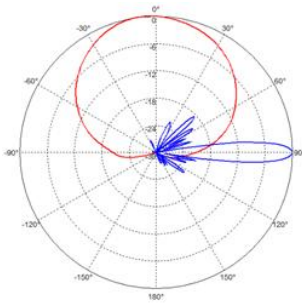
R1/R2: 690-960 MHz;
 FDD BF PORTS with Cluster Jumpers MQ4/MQ5;
 B1/B2/B3/B4: 1710-2170 MHz;
 TDD BF PORTS with Cluster Jumpers MQ4/MQ5;
 Y1: 2300-2690 MHz;

Configuration Types:

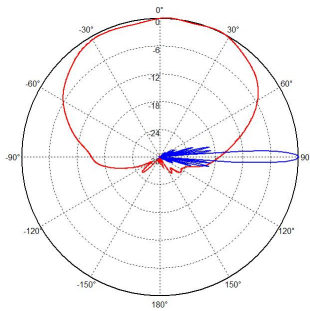


RET S/N:
 KBxxx-R1-xx.....;
 KBxxx-R2-xx.....;
 KBxxx-B1-xx.....;
 KBxxx-B2-xx.....;
 KBxxx-B3-xx.....;
 KBxxx-B4-xx.....;
 KBxxx-Y1-xx.....;

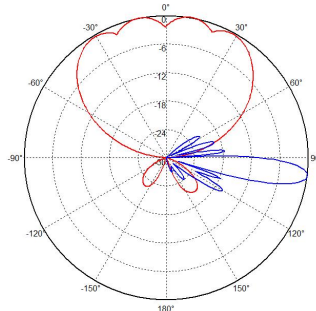
Pattern sample for reference:



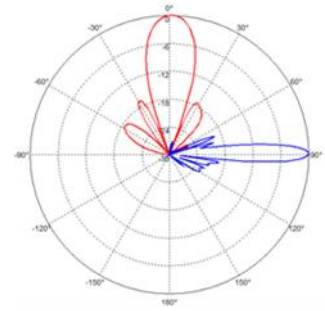
R1/R2: 690-960 MHz



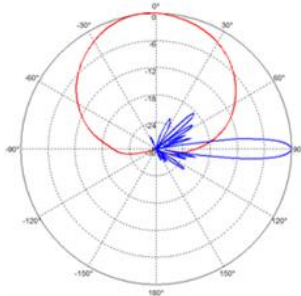
Single column
B1/B2/B3/B4: 1710-2170 MHz



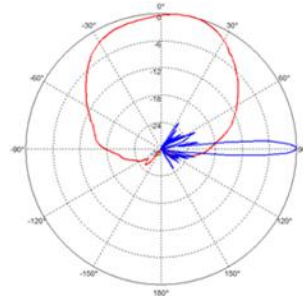
NR Broadcast
B1/B2/B3/B4: 1710-2170 MHz



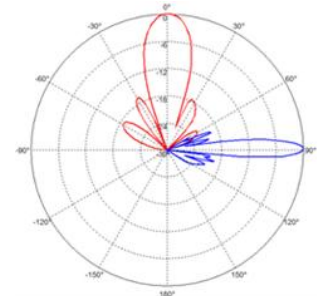
Service Beam (0°)
B1/B2/B3/B4: 1710-2170 MHz



Single column
Y1: 2300-2690 MHz



65° Broadcast
Y1: 2300-2690 MHz



Service Beam (0°)
Y1: 2300-2690 MHz

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