



RAN Macro Sector 6313 B78C 16P

The RAN Macro Sector is an integrated site solution that includes a combination of multiple Massive MIMO antennas or a Massive MIMO antenna and multi-band passive antenna. RAN Macro Sector will be the choice for the faster site acquisition, keep the rental challenges minimal and ability to deploy M-MIMO on minimal footprint.

Integrated Site Solution

RAN Macro Sector 6313 B78C 16P is a single functional unit based on 32TR active radio and 16 port passive antenna. Mechanical Spine supporting common mechanical tilt and high-performance RF compatible radome. An excellent choice for M-MIMO & 5G NR introduction with minimal site footprint and visual impact.

CAPEX savings from less or no need for building permits, rental negotiations and structural works as well as faster installation. OPEX savings from no extra rental costs and improved installation quality. REVENUE gain from improved Time to Market.

RF Compatible Radome

The radome is a UV-resistant compound that withstand tough outdoor environmental requirements at same time ensure optimal radio and antenna system RF performance. Proprietary Vortex Generators with up to 30% reduced wind load.

Easy & Flexible Mounting

The RAN Macro Sector 6313 B78C 16P designed for both pole & wall mounting options. Mounting requires the AIR heavy bracket with the tilt and azimuth option.

The AIR Heavy brackets can be used on a range of pole diameters. The brackets have a robust design, two mounting options onto the mechanical spine and can handle weight up to 120kg with a maximum down-tilt of 12° and azimuth of ±30°.





Technical specification for RAN Macro Sector 6313 B78C16P

RAN Macro Sector 6313 B78C 16P, Product number: 502/BFF 901 26/1

Active Antenna System (AAS) Band 78C	Frequency Range	3500-3700MHz
	AAS	32TX/RX with 128 AE
	IBW	100MHz
	Max. EIRP	72 dBm
	Max total output power	100W

Passive Antenna part	
• Array Configuration	16-Port 2LB/6HB
• RF-Connectors	16 x 4.3-10 female
• Adjustment Mechanism	FlexRET, continuously adjustable

Mechanical

System weight:	Without Bracket: 90 Kg approx. With Brackets: 102.5 Kg approx..
Dimension (H x W x D):	2199 x 488mm x 288mm (Without bracket)
Mounting	Vertical at Pole or Wall
Pole Size	With Heavy AIR Bracket (SXX 109 2037/1) Pole diameter (round) 76 mm to 120 mm Pole diameter (square) 50 mm x 50 mm to 100 mm x 100 mm Pole diameter (90-degree equal angle) 50 mm x 50 mm to 100 mm x 100 mm
Mechanical tilt	Maximum down-tilt of 12° and azimuth of ±30°
Wind Load (Frontal/Lateral/Maximal)	(985/750/1160 N) at 42m/s and 1.25kg/m ³
Survival Wind Speed	67m/s*
Seismic & Vibration	Earthquake Zone 4, ETSI EN 300 019-2-4 class T4.1, severity class 1

Environmental

Operating Temperature:	-40°C to +55°C
Cooling:	Natural Convection Cooled

Standard & Specification

Corrosion Test	IEC/UL 60950-22 & ISO 21207 method B
UV Resistant	IEC 60950-22
Impact Test	IEC/UL60950-22
Icing Test	IEC 60721-3-4, 4Kx ETSI EN300 019-1-4 Class 4.1
Flammability	UL94-HB

Interfaces

Grounding:	Dual hole M6 at Mechanical Spine
Optical & Power:	3 x10 Gbps eCPRI or 1x25 Gbps eCPRI and --48 VDC 3-wire (possible to connect as 2-wire)
Optical Indicators (LED)	Yes

Passive Antenna

16-Port Antenna	R1	R2	B1	Y1	Y2	Y3	B2	Y4
Frequency Range	698-960	698-960	1427-2170	2500-2690	1695-2690	1695-2690	1427-2170	2500-2690
Dual Polarization	X	X	X	X	X	X	X	X
HPBW	65°	65°	65°	65°	65°	65°	65°	65°
Gain	14.9dBi	15dBi	16.7dBi	17dBi	17.6dBi	17.5dBi	16.9dBi	17.1dBi
Adjust. Electr. DT	2°-12°	2°-12°	2°-12°	2°-12°	2°-12°	2°-12°	2°-12°	2°-12°

Active Antenna B78C Performance Data for Broadcast Beams

Scenario	VBW (°)	HPBW (°)	Digital Downtilt (°)	Vertical Beam Pointing Error (°)	Horizontal Beam Pointing Direction (°)	EIRP (Max) (dBm)	Side Lobe Suppression (dB)	Front to Back Ratio (dB)
Macro	10±1	65±5	1 to 9	≤ 1	≤ 5	1 × 66.5±1.5	12 (vertical) [Tilt 1:7] 8 (vertical) [Tilt 8:9]	28
Hotspot	19.5±3	65±5	Fixed 6	≤ 3	≤ 5	1 × 64.0±1.5	12 (vertical)	N/A
Highrise	19.5±3	25±5	Fixed 6	≤ 1	≤ 5	1 × 65.0±1.5	12 (vertical)	28