



2-port sector antenna, 2x 1710–2180 MHz, 65° HPBW, RET compatible

- Superior azimuth tracking and pattern symmetry to minimize any sector overlap
- Rugged, reliable design with excellent passive intermodulation suppression

Electrical Specifications

Frequency Band, MHz	1710–1880	1850–1990	1920–2180
Gain, dBi	17.4	17.6	17.8
Beamwidth, Horizontal, degrees	66	64	66
Beamwidth, Vertical, degrees	7.4	6.9	6.4
Beam Tilt, degrees	0–10	0–10	0–10
USLS (First Lobe), dB	19	19	19
Front-to-Back Ratio at 180°, dB	35	35	35
Isolation, Cross Polarization, dB	30	30	30
VSWR Return Loss, dB	1.4 15.6	1.4 15.6	1.4 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350
Polarization	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	1710–1880	1850–1990	1920–2180
Gain by all Beam Tilts, average, dBi	17.1	17.4	17.4
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.3	±0.5
Gain by Beam Tilt, average, dBi	0 ° 17.0 5 ° 17.2 10 ° 16.9	0 ° 17.3 5 ° 17.5 10 ° 17.0	0 ° 17.4 5 ° 17.3 10 ° 17.1
Beamwidth, Horizontal Tolerance, degrees	±3.8	±2.4	±5.2
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.4	±0.6
USLS, beampeak to 20° above beampeak, dB	18	18	17
Front-to-Back Total Power at 180° ± 30°, dB	26	27	26
CPR at Boresight, dB	17	19	20
CPR at Sector, dB	9	7	7

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

Array Layout



Array	Freq (MHz)	Conns
B1	1710-2180	1-2

Bottom

(Sizes of colored boxes are not true depictions of array sizes)

General Specifications

Operating Frequency Band	1710 – 2180 MHz
Antenna Type	Sector
Band	Single band
Performance Note	Outdoor usage

Mechanical Specifications

RF Connector Quantity, total	2
RF Connector Quantity, high band	2
RF Connector Interface	7-16 DIN Female
Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radiator Material	Low loss circuit board
Radome Material	PVC, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	257.0 N @ 150 km/h 61.4 lbf @ 150 km/h
Wind Loading, lateral	15.1 lbf @ 150 km/h 67.0 N @ 150 km/h
Wind Speed, maximum	241 km/h 150 mph

Dimensions

HBX-6516DS-VTM | HBX-6516DS-A1M

Length	1306.0 mm 51.4 in
Width	166.0 mm 6.5 in
Depth	83.0 mm 3.3 in
Net Weight, without mounting kit	4.7 kg 10.4 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 2.0 Actuator HBX-6516DS-A1M

Packed Dimensions

Length	1442.0 mm 56.8 in
Width	277.0 mm 10.9 in
Depth	188.0 mm 7.4 in
Shipping Weight	11.5 kg 25.4 lb

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
ISO 9001:2015
China RoHS SJ/T 11364-2014
CE

Classification

Compliant by Exemption
Designed, manufactured and/or distributed under this quality management system
Above Maximum Concentration Value (MCV)
Compliant with the relevant CE product directives



Included Products

DB390 — Pipe Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Use for narrow panel antennas. Includes two pipe mounts.

DB5098E — Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance