

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



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

OBSOLETE

This product was discontinued on: March 30, 2024

General Specifications

Antenna Type	Sector
Band	Single band
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	PVC, UV resistant
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	2
RF Connector Quantity, total	2

Remote Electrical Tilt (RET) Information

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

Dimensions

Width	166 mm 6.535 in
Depth	83 mm 3.268 in
Length	1306 mm 51.417 in
Net Weight, without mounting kit	4.7 kg 10.362 lb

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

Array Layout



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

Bottom

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

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1710 – 2180 MHz
Polarization	±45°

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

Electrical Specifications, BASTA

Frequency Band, MHz	1710–1880	1850–1990	1920–2180
---------------------	-----------	-----------	-----------

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

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

Mechanical Specifications

Wind Loading @ Velocity, frontal	257.0 N @ 150 km/h (57.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	67.0 N @ 150 km/h (15.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	310.0 N @ 150 km/h (69.7 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	277 mm 10.906 in
Depth, packed	188 mm 7.402 in
Length, packed	1442 mm 56.772 in
Weight, gross	11.5 kg 25.353 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant



Included Products

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

- 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