

6206712E

6206712EG 6206712EN 6206712ENG

Twin Beam | 4-Port | Panel Antenna | (2x) X-Pol | 35° | 1240 mm

TwinBeam

- Twin beam antenna, Dual polarisation, 4 connectors
- Independent tilt on each band 2-12°
- RET version, 3GPP/AISG2.0 with integrated RCU
- Mounting and downtilt brackets included

| | | | |
|-------------------------|-----------------------|---------------------|-----------|
| PRODUCT OVERVIEW | Frequency Range (MHz) | 1695-2690 | 1695-2690 |
| | Array | ■ Y1 | ■ Y2 |
| | Connector Position | 1-2 | 3-4 |
| | Polarization | XPOL | XPOL |
| | Azimuth Beamwidth | 35° | 35° |
| | Electrical Downtilt | 2-12° | 2-12° |
| | Dimensions | 1240 x 398 x 159 mm | |



ORDERING OPTIONS

Select from the different options listed below

| SELECT ELECTRICAL DOWNTILT CONTROL & AISG PROTOCOL | SELECT ACTUATOR | SELECT CONNECTOR TYPE | ANTENNA MODEL NUMBER |
|--|----------------------------------|-----------------------|----------------------|
| Manual Electrical Tilt (MET) | --- | 7/16 DIN Female | 6206712E |
| | | 4.3-10 Female | 6206712EN |
| Remote Electrical Tilt (RET) AISG v2.0 / 3GPP | Multi-Device Control Unit (MDCU) | 7/16 DIN Female | 6206712EG |
| | | 4.3-10 Female | 6206712ENG |

*Pre-commissioned configuration; Contact Amphenol for further details.



Several patents pending regarding this product. Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

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ELECTRICAL SPECIFICATIONS Ultra Wide Band

■ Y1, Y2

| Frequency Range | | MHz | 1695-2690 | | | |
|---|---------------------|---------|--------------|--------------|--------------|--------------|
| | | MHz | 1695-1880 | 1920-2180 | 2300-2500 | 2490-2690 |
| Polarization | | --- | ±45° | | | |
| Gain | Over all Tilts | dBi | 18.0 ± 0.5 | 18.5 ± 0.5 | 18.8 ± 0.5 | 19.0 ± 0.5 |
| Azimuth Beamwidth | | degrees | 37.0° ± 3.0° | 35.0° ± 3.0° | 33.0° ± 3.0° | 31.0° ± 3.0° |
| Elevation Beamwidth | | degrees | 8.0° ± 0.5° | 7.0° ± 0.5° | 6.8° ± 0.5° | 6.0° ± 0.5° |
| Horizontal Beam Pointing | | --- | ± 28.0 ± 3.0 | ± 27.5 ± 3.0 | ± 27.5 ± 3.0 | ± 27.0 ± 3.0 |
| Electrical Downtilt | | degrees | 2°-12° | | | |
| Impedance | | Ohms | 50 | | | |
| VSWR | | --- | ≤ 1.5:1 | | | |
| Passive Intermodulation | | dBc | < -153 | | | |
| Front-to-Back Ratio, Total Power, ±35° | | dB | > 26 | > 26 | > 26 | > 26 |
| First Upper Sidelobe Suppression | | dB | > 15 | > 15 | > 15 | > 15 |
| Upper Sidelobe Suppression, Peak to 20° | | dB | > 15 | > 15 | > 15 | > 15 |
| Cross Polar Discrimination | Main Direction (0°) | dB | > 18 | > 18 | > 18 | > 18 |
| | @ 30° | dB | > 9 | > 9 | > 9 | > 9 |
| Maximum Effective Power Per Port | | Watts | 200 W | | | |
| Port to Port Isolation | | dB | ≥ 25 | | | |

Standard values based on NGMN-P-BASTA version 10.0 recommendation.

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ELECTRICAL DOWNTILT CONTROL

For multiband antennas, electrical downtilt for each band can be controlled separately.

| | |
|--------------------------------------|--|
| Manual Electrical Tilt (MET) Control | The MET is a separate kit provided on the bottom of the antenna. This kit has colored knobs with a respective array identification indicated within it. This knob can be rotated to set an electrical downtilt as per the requirement. The tilt information of the respective arrays can be observed with an indicator provided near the knob. |
| Remote Electrical Tilt (RET) Control | The remote control of the electrical tilt is managed by a Multi-Device Control Unit (MDCU) inserted in the bottom of the antenna. <i>See details below and refer to the ordering options to see which actuators are available with this particular antenna.</i> A single actuator individually controls the tilt of each band (no need for daisy chain cables between the bands). This module does not add any additional length to the antenna. |

INTEGRATED RET PROPERTIES

| | |
|------------------------------|---|
| Protocols | Compliant With AISGV2.0 And 3GPP |
| Power Supply | 10-30VDC |
| Power Consumption | < 1W (Idle), < 10W (In Motion) |
| Angular Accuracy | ≤ 0.5 deg |
| Hardware Interface | RS485 And Power |
| Safety Standard | Compliant to EN 60950/UL 60950/RoHS, CE |
| Remote Control | Can management from OMC, BTS/NodeB |
| Adjustment Time (Full Range) | ≤ 90 s (typical, depending on Antenna type) |
| Adjustment Cycles | > 20,000 |
| Torque Max | ≥ 160 mN.m |
| Lightning Protection Rating | IEC 61000-4-5 Current Pulse Profile, 8kA (8/20 μs), 2.5 kA (10/350 μs) |
| Housing Material | Aluminum |
| Housing Color | Silvery white |
| Mounting | Directly onto Antenna |
| Protection Class | IP65 |
| Operating Temperature | -40° to +60° C |
| Weight | ≤ 500 g |
| Connectors | 2 x 8 Pin Circle Connector According To IEC 60130-9 And AISG. Daisy Chain In : Male, Daisy Chain Out : Female Pin3:RS485+; Pin5:RS485-; Pin6:10~30V; Pin7:GND Female connector: 8 PINs ,Male connector: 5 PINs |

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| ARRAY LAYOUT | ARRAY | FREQUENCY | CONNECTOR | CONNECTOR TYPE |
|--------------|-------|-----------|-----------|--|
| | ■ Y1 | 1695-2690 | 1-2 | 4.3-10 Female or 7/16 DIN Female Standard Neck |
| | ■ Y2 | 1695-2690 | 3-4 | 4.3-10 Female or 7/16 DIN Female Standard Neck |

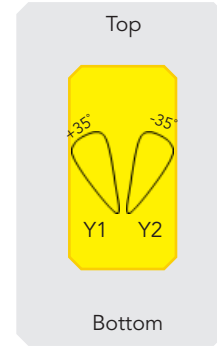


Diagram shown at right depicts the view from the front of the antenna. The illustration is not shown to scale.

MECHANICAL SPECIFICATIONS

| | | | |
|--|-------------|--------------------------------------|-------------|
| Length | mm (in) | 1240 (48.8) | |
| Width | mm (in) | 398 (15.6) | |
| Depth | mm (in) | 159 (6.2) | |
| Net Weight - Antenna Only | kg (lbs) | ≈19 (41.9) | |
| Mechanical Distance Between Mounting Points | mm (in) | Refer to Diagram | |
| Survival Wind Speed | km/h | 200 (124) | |
| Windload (EN 1991-1-4:2005 using Wind Tunnel Coefficients) | Calculation | km/h | 150 (93.2) |
| | Frontal | N (lbf) | 970 (218.0) |
| | Lateral | N (lbf) | 450 (101.1) |
| Reflector Material | --- | Aluminium | |
| Radiator Material | --- | Aluminium and Low loss circuit board | |
| Radome Material | --- | Fiberglass (UV, Resistant) | |
| Radome Color | --- | Gray RAL7035 | |

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ENVIRONMENTAL SPECIFICATIONS

| | | |
|----------------------------------|-----------|-----------------------------|
| Environmental Standard | --- | ETS 300 019 |
| Lightning Protection | --- | Direct Ground |
| Operating Temperature | ° C (° F) | -40° to +60° (-40° to 140°) |
| Product Environmental Compliance | --- | Product is RoHs Compliant |

ACCESSORIES

All accessories are ordered separately unless otherwise indicated

| ITEM | MODEL NUMBER | WEIGHT |
|---|--------------|------------------|
| Brackets for pole Ø48 to Ø115 mm (Ø1.9 to Ø4.5 in) delivered as standard | IA00181 | 3.4 kg (7.5 lbs) |
| Kit to add mechanical tilt (0° to 10°) to above brackets optional | 0900397/00 | 3.0 kg (6.6 lbs) |

Wall mounting brackets are available upon request

INSTALLATION

Please read all installation notes before installing this product.



Always attach the antenna by all mounting points.

Do not install the antenna with the connectors facing upwards.