

## 5876400

3-Band, 6-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1390 mm



- Tri Band Antenna, dual polarization, 6 connectors
- Independent tilt on each band, 0-10° / 0-10° / 0-10°
- Slimline profile for low wind load
- MET and RET versions, 3GPP/AISG2.0, in multiple single RET (multiple device type1) or in Multi-RET (device type 17, with firmware above MD3.10).
- Our patented RET module to control all tilt angles, fully inserted inside the antenna (field replaceable)

<b>PRODUCT OVERVIEW</b>	Frequency Range (MHz)	790-960	1710-2690	1710-2690
	Array	<span style="color: red;">■</span> R1	<span style="color: yellow;">■</span> Y1	<span style="color: yellow;">■</span> Y2
	Connector	1-2	3-4	5-6
	Polarization	XPOL	XPOL	XPOL
	Azimuth Beamwidth (avg)	65°	65°	65°
	Electrical Downtilt	0-10°	0-10°	0-10°
	Dimensions	1390 x 305 x 160 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	5876400
Remote Electrical Tilt (RET) AISG v2.0 / 3GPP	Multi-Device Control Unit (MDCU)	7/16 DIN Female	5876400G



Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal 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 product may be made without notice.

5876400

65° 1390 mm

3-Band, 6-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1390 mm

**ELECTRICAL SPECIFICATIONS** Low Band

■ R1

Frequency Range		MHz	790-960	
		MHz	790-880	880-960
Polarization		---	±45°	
Gain	Over all Tilts	dBi	13.7	14.7
Azimuth Beamwidth		degrees	65°	65°
Elevation Beamwidth		degrees	15.5°	15.5°
Electrical Downtilt		degrees	0-10°	
Impedance		Ohms	50	
VSWR		---	< 1.5	
Passive Intermodulation 3rd Order for 2 x 20W Carriers		dBc	< -153	
Front-to-Back Ratio, Total Power, ±30°		dB	> 25	> 27
Upper Sidelobe Suppression (Typical)		dB	> 18	
Maximum Effective Power Per Port		Watts	400	
Intra Band Isolation		dB	> 28 (for 0°-2° tilt), > 30	
Inter Band Isolation		dB	> 35	

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

**ELECTRICAL SPECIFICATIONS** Ultra Wide Band

■ Y1, Y2

Frequency Range		MHz	1710-2690		
		MHz	1710-1880	1920-2170	2180-2690
Polarization		---	±45°		
Gain	Over all Tilts	dBi	14.1	14.5	14.9
Azimuth Beamwidth		degrees	65°	65°	62°
Elevation Beamwidth		degrees	14.5°	12.1°	10.4°
Electrical Downtilt		degrees	0-10°		
Impedance		Ohms	50		
VSWR		---	< 1.5		
Passive Intermodulation 3rd Order for 2 x 20W Carriers		dBc	< -153		
Front-to-Back Ratio, Total Power, ±30°		dB	> 30		
Upper Sidelobe Suppression (Typical)		dB	> 18		
Maximum Effective Power Per Port		Watts	300		
Intra Band Isolation		dB	> 28		
Inter Band Isolation		dB	> 35		

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

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal 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 product may be made without notice.

5876400

65°

1390 mm

3-Band, 6-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1390 mm

## ELECTRICAL DOWNTILT CONTROL

For multiband antennas, electrical downtilt for each band can be controlled separately. Tilt indicator(s) are covered by removable transparent cap(s).

Manual Electrical Tilt (MET) Control	A colored knob at the end of the tilt indicator allows change of the tilt without need of a tool. The knob color is identical to the corresponding connector color. To access the knob, remove the cap by turning it counter-clockwise. It is re-installed by opposite rotation. <b>Do not remove the transparent cap(s) from the antenna.</b>
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. See details below and refer to the ordering options to see which actuators are available with this particular antenna. 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. For RET control, the transparent caps must be in place and locked. The tilt angle indicators always remain visible and the antenna still has manual tilt control (manual override). <b>Do not remove the transparent cap(s) from the antenna.</b>

## RET ACTUATOR

Amphenol's **RET-READY** antennas are delivered with the RET Actuator already installed and pre-commissioned with all antenna parameters. Every RET device is factory configured and calibrated so the antenna is ready to be used once delivered to the site which means that there is no need for further installation of RET devices or for programming their configuration or for running a calibration process.

RET-READY ACTUATORS	<b>Multi-Device Control Unit (MDCU).</b> The MDCU is an electronic module that allows the remote control of the electrical downtilt (RET) in Amphenol antennas with factory embedded motors. The MDCU is factory installed.	
Number of RET-READY Actuators	One per antenna	
Input Voltage	+10 to +30 V	
Power Consumption	Idle State	0.5 W
	Operating	4 W typical / 10 W maximum
Protocol	3GPP/AISG 2.0	
Tilt Change Duration	Less than 15 seconds, typical (may vary dependent on antenna type and outdoor temperature)	
Precision	±0.5°	
Tilt Change Capability	50,000 minimum	
Field Replaceable Unit	Yes	

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal 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 product may be made without notice.

## 5876400

65°

1390 mm

3-Band, 6-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1390 mm

### MECHANICAL SPECIFICATIONS

Length	mm (in)	1390 (54.9)
Width	mm (in)	305 (12.0)
Depth	mm (in)	160 (6.3)
Net Weight - Antenna Only	kg (lbs)	10 (22.0)
Mechanical Distance Between Mounting Points	mm (in)	Refer to Diagram
Windload (EN 1991-1-4:2005 using Wind Tunnel Coefficients)	Frontal	N (lbf) 1350 (303.4)
	Lateral	N (lbf) 450 (101.1)
	Rearside	N (lbf) 1600 (359.6)
Operational Wind Speed	km/h (mph)	160 (99.4)
Survival Wind Speed	km/h (mph)	200 (124)

### ENVIRONMENTAL SPECIFICATIONS

Environmental	---	ETS 300 019
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	0900181/00	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

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal 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 product may be made without notice.

5876400

65° 1390 mm

3-Band, 6-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 1390 mm

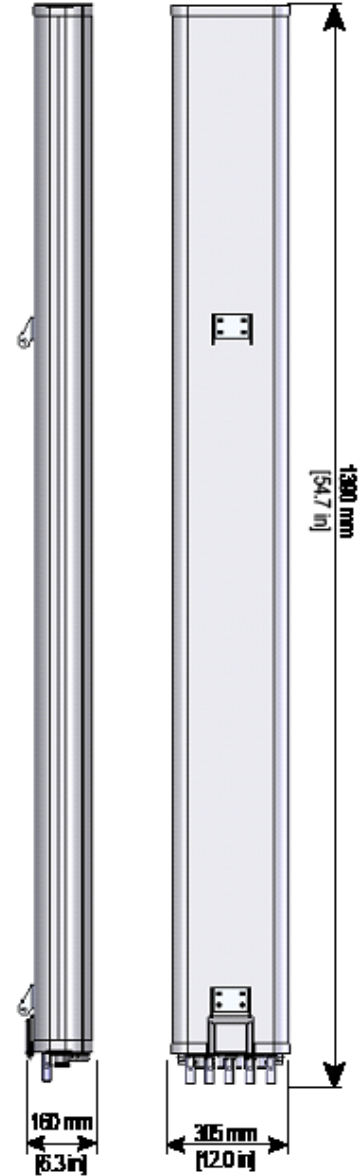


Location of the MDCU for RET Control

Tilt indicators covered by transparent caps.  
Manual adjustment is accessed by removing the caps.  
Knob colors are the same as the connectors.

ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	R1	790-960	1-2	7/16-DIN Female Long Neck
	Y1	1710-2690	3-4	7/16-DIN Female Long Neck
	Y2	1710-2690	5-6	7/16-DIN Female Long Neck

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



In order to operate RET control, the transparent caps covering the tilt adjustment indicators must be engaged and locked. Do not cut them from the antenna.