10-Port Antenna

StreamLine

2691 mm

65°

698-960 | 1695-2690 | 1695-2690 | 1695-2690 | 1695-2690 MHz

📕 R1

6800400ENQv

5-Band, 10-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 2691 mm

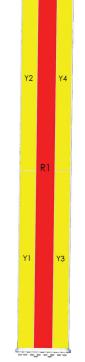
- Penta band antenna, dual polarisation, 10 connectors
- Independent tilt on each band 0-10° / 2-12° / 2-12° / 2-12°
- MET and RET versions, 3GPP/AISG2.0

Amphenol

ANTENNA SOLUTIONS

Our patented RET module to controlling all tilt angles (field replaceable)

PRODUCT OVERVIEW	Frequency Range (MHz)	698-960	1695-2690	1695-2690	1695-2690	1695-2690	
	Array	📕 R1	<mark></mark> Y1	<u> </u>	<mark>_</mark> Y3	Y4	
	Connector	1-2	3-4	5-6	7-8	9-10	
	Polarization	XPOL	XPOL	XPOL	XPOL	XPOL	
	Azimuth Beamwidth (avg)	65°	65°	65°	65°	65°	
	Electrical Downtilt	0-10°	2-12°	2-12°	2-12°	2-12°	
	Dimensions	2691 × 398 × 159 mm					



ELECTRICAL SPECIFICATIONS Ultra Low Band

ELECIRICA	L SPECIFICATIONS Ultr	a Low Band	-	R I	
Frequency Range		MHz	698-	-960	
			698-790	880-960	
Polarization			±4	15°	
Gain Over all Tilts		dBi	15.8 ± 0.4	16.8 ± 0.6	
Azimuth Bea	mwidth	degrees	$70.0^{\circ} \pm 4.5^{\circ}$	65.0° ± 5.0°	
Elevation Bea	amwidth	degrees	9.0° ± 0.7°	7.2° ± 0.6°	
Electrical Downtilt		degrees	0°-	10°	
Impedance		Ohms	50		
VSWR			< 1.5		
Passive Interi 3rd Order for	nodulation 2 x 20W Carriers	dBc	< -153		
Front-to-Bacl	k Ratio, Total Power, ±30°	dB	> 25.0		
Upper Sidelo	be First Upper Lobe	dB	> 16.0		
Suppression	Peak to 20°	dB	> 1	5.0	
Cross Polar	Main Direction (0°)	dB	> 18.0	> 17.8	
Ratio	Sector Edges (60°)	dB	> 13.0	> 8.6	
Maximum Eff	ective Power Per Port	Watts	500 W		
Inter Band Isolation		dB	≥ 28		
Cross-Polar I	solation	dB	≥ 26		

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



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.

CONNECTING PEOPLE + TECHNOLOGY www.amphenol-antennas.com



10-Port Antenna 698-960 | 1695-2690 | 1695-2690 | 1695-2690 | 1695-2690 MHz

65° 2691 mm

6800400ENQv

5-Band, 10-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 2691 mm

ELECTRICAL SPECIFICATIONS Ultra Wide Band

Frequency Ra	ange	MHz		1695-2690			
		MHz	1695-1880	1920-2180	2490-2690		
Polarization				±45°			
Gain	Over all Tilts	dBi	16.6 ± 0.5	16.8 ± 0.5	16.9 ± 0.5		
Azimuth Bea	nwidth	degrees	$65.0^{\circ} \pm 5.0^{\circ}$	63.0° ± 5.1°	60.0° ± 5.0°		
Elevation Bea	amwidth	degrees	7.3° ± 0.6°	6.4° ± 0.6°	5.2° ± 0.6°		
Electrical Do	wntilt	degrees	2°-12°				
Impedance		Ohms	50				
VSWR			< 1.5				
Passive Interi 3rd Order for	modulation 2 x 20W Carriers	dBc	< -153				
Front-to-Bacl	k Ratio, Total Power, ±30°	dB	> 26.0	> 28.2	> 26.1		
Upper Sidelo	be First Upper Lobe	dB	> 16.0				
Suppression	Peak to 20°	dB	> 15.0				
Cross Polar	Main Direction (0°)	dB	> 20.6	> 21.7	> 18.7		
Ratio	Sector Edges (60°)	dB	> 8.0	> 9.7	> 7.2		
Maximum Ef	ective Power Per Port	Watts	250 W				
Inter Band Is	olation	dB		≥ 28			
Cross-Polar Is	solation	dB		≥ 26			

ELECTRICAL SPECIFICATIONS Ultra Wide Band

Standard values based on NGMN-P-BASTA version 10.0 recommendation. **V**2

L SPECIFICATIONS Off	a Wide Band		Y2			
Frequency Range			1695-2690			
	MHz	1695-1880 1920-2180 2490-26				
			±45°	I		
Over all Tilts	dBi	16.6 ± 0.5	16.8 ± 0.5	16.9 ± 0.5		
nwidth	degrees	$65.0^{\circ} \pm 5.0^{\circ}$	$63.0^{\circ} \pm 5.1^{\circ}$	$60.0^{\circ} \pm 5.0^{\circ}$		
mwidth	degrees	7.3° ± 0.6°	$6.4^{\circ} \pm 0.6^{\circ}$	$5.2^{\circ} \pm 0.6^{\circ}$		
ntilt	degrees		2°-12°			
	Ohms	50				
		< 1.5				
odulation 2 x 20W Carriers	dBc	< -153				
Ratio, Total Power, ±30°	dB	> 27.6	> 26.6	> 27.0		
e First Upper Lobe	dB	> 16.0				
Peak to 20°	dB	> 15.0				
Main Direction (0°)	dB	> 19.0	> 22.0	> 18.3		
Sector Edges (60°)	dB	> 10.2	> 11.0	> 8.2		
ective Power Per Port	Watts	250 W				
lation	dB	≥ 28				
plation	dB	≥ 26				
	Over all Tilts width mwidth mwidth codulation 2 x 20W Carriers Ratio, Total Power, ±30° Peak to 20° Main Direction (0°) Sector Edges (60°) ective Power Per Port lation	MHzMHzOver all TiltsdBiover all TiltsdBinwidthdegreesmwidthdegreesmtiltdegreesodulation $2 \times 20W$ CarriersOhmsdBcdBcRatio, Total Power, ±30°dBPeak to 20°dBPeak to 20°dBMain Direction (0°)dBSector Edges (60°)dBationdBdBdBdBdBdBdBdBdB	MHzMHzMHz1695-1880Over all TiltsdBi16.6 ± 0.5nwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdegreesmwidthdBcmwidthdBcmodulation 2 x 20W CarriersdBRatio, Total Power, ±30°dBPeak to 20°dBMain Direction (0°)dBSector Edges (60°)dBsective Power Per PortWattslationdBdationdBdationdBmathematical dationdBmathematical dation <td>MHz 1695-2690 MHz 1695-1880 1920-2180 MHz 1695-1880 1920-2180 MHz 1665±0.5 16.8±0.5 MHz dBi 16.6±0.5 16.8±0.5 MHz degrees $65.0^\circ \pm 5.0^\circ$ $63.0^\circ \pm 5.1^\circ$ mwidth degrees $7.3^\circ \pm 0.6^\circ$ $6.4^\circ \pm 0.6^\circ$ mwidth degrees $2^\circ-12^\circ$ Ohms 50 multit degrees $2^\circ-12^\circ$ Ohms 50 odullation $2 \times 20W$ Carriers dBc < -153 < -153 Ratio, Total Power, $\pm 30^\circ$ dB > 27.6 > 26.6 Peak to 20° dB > 19.0 > 22.0 Sector Edges (60^\circ) dB > 19.0 > 22.0 Sector Edges (60^\circ) dB > 10.2 > 11.0 Matrix Matrix Matrix $250 W$</td>	MHz 1695-2690 MHz 1695-1880 1920-2180 MHz 1695-1880 1920-2180 MHz 1665±0.5 16.8±0.5 MHz dBi 16.6±0.5 16.8±0.5 MHz degrees $65.0^\circ \pm 5.0^\circ$ $63.0^\circ \pm 5.1^\circ$ mwidth degrees $7.3^\circ \pm 0.6^\circ$ $6.4^\circ \pm 0.6^\circ$ mwidth degrees $2^\circ-12^\circ$ Ohms 50 multit degrees $2^\circ-12^\circ$ Ohms 50 odullation $2 \times 20W$ Carriers dBc < -153 < -153 Ratio, Total Power, $\pm 30^\circ$ dB > 27.6 > 26.6 Peak to 20° dB > 19.0 > 22.0 Sector Edges (60^\circ) dB > 19.0 > 22.0 Sector Edges (60^\circ) dB > 10.2 > 11.0 Matrix Matrix Matrix $250 W$		

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

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. REV/042319I CONNECTING PEOPLE + TECHNOLOGY 2 of 6



Y3

6800400ENQv

5-Band, 10-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 2691 mm

ELECTRICAL SPECIFICATIONS Ultra Wide Band

				_ 15			
MHz				1695-2690			
Frequency Range		MHz	1695-1880	1920-2180	2490-2690		
Polarization			±45°				
Gain	Over all Tilts	dBi	16.6 ± 0.5	16.8 ± 0.5	16.9 ± 0.5		
Azimuth Bear	nwidth	degrees	65.0° ± 5.0°	63.0° ± 5.1°	$60.0^{\circ} \pm 5.0^{\circ}$		
Elevation Bea	amwidth	degrees	7.3° ± 0.6°	$6.4^{\circ} \pm 0.6^{\circ}$	5.2° ± 0.6°		
Electrical Dov	vntilt	degrees	2°-12°				
Impedance		Ohms	50				
VSWR			< 1.5				
Passive Interr 3rd Order for	nodulation 2 x 20W Carriers	dBc	< -153				
Front-to-Back	Ratio, Total Power, ±30°	dB	> 27.7	> 28.4	> 27.1		
Upper Sidelo	be First Upper Lobe	dB	> 16.0				
Suppression	Peak to 20°	dB	> 15.0				
Cross Polar	Main Direction (0°)	dB	> 21.0	> 20.6	> 17.8		
Ratio	Sector Edges (60°)	dB	> 9.1	> 12.3	> 7.0		
Maximum Effective Power Per Port		Watts	250 W				
Inter Band Iso	olation	dB		≥ 28			
Cross-Polar Is	olation	dB	≥26				

ELECTRICAL SPECIFICATIONS Ultra Wide Band

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

ELECTRICA	L SPECIFICATIONS Ultr	a Wide Band		<mark></mark> Y4		
F		MHz		1695-2690		
Frequency Range		MHz	1695-1880	1920-2180	2490-2690	
Polarization				±45°	1	
Gain	Over all Tilts	dBi	16.6 ± 0.5	16.8 ± 0.5	16.9 ± 0.5	
Azimuth Bea	mwidth	degrees	65.0° ± 5.0°	63.0° ± 5.1°	$60.0^{\circ} \pm 5.0^{\circ}$	
Elevation Bea	amwidth	degrees	7.3 ± 0.6°	6.4° ± 0.6°	5.2° ± 0.6°	
Electrical Dov	wntilt	degrees	2°-12°			
Impedance		Ohms	50			
VSWR			< 1.5			
Passive Interr 3rd Order for	modulation r 2 x 20W Carriers	dBc	< -153			
Front-to-Back	k Ratio, Total Power, ±30°	dB	> 27.6	> 28.2	> 27.0	
Upper Sidelo	be First Upper Lobe	dB	> 16.0		1	
Suppression	Peak to 20°	dB		> 15.0		
Cross Polar	Main Direction (0°)	dB	> 21.1	> 20.4	> 17.8	
Ratio	Sector Edges (60°)	dB	> 9.0	> 12.1	> 7.0	
Maximum Effective Power Per Port		Watts	250 W			
Inter Band Iso	olation	dB	≥ 28			
Cross-Polar Is	solation	dB		≥ 26		

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

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.



65° 2691 mm

6800400ENQv

5-Band, 10-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 2691 mm

ELECTRICAL DOWNTILT CONTROL

For multiband antennas, electrical downtilt for each band can be controlled separately.					
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. The manual tilt 'override' function is always available with no need to remove the physical RET motor.				
Remote Electrical Tilt (RET) Control	The remote control of the electrical tilt is managed by a Multi-Device Control Unit (MDCU) or a Multi-Device Dual Unit (MDDU) or a Multi-Device Quadport Unit (MDQU) 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.				

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 Multi-Device Quadport Unit (MDQU). The MDQU allows two separate RET Controllers to independently drive the RETs in antennas with factory embedded motors (for antenna sharing or two technologies). This can be used to enable daisy-chain operation for two operators simultaneously. The MDQU is factory installed.

Number of RET-READY Actuators		One per antenna
Input Voltage		+10 to +30 V
Power Consumption Idle State Operating		0.5 W
		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)
Lightning Protection Ra	ting	2.5kA (10/350µs)/8kA (8/20µs)
Tilt Change Capability		50,000 minimum
RET Interface		2 pair of AISG Male and Female (type IEC60130-9)
Field Replaceable Unit		Yes

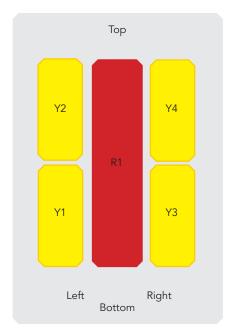
Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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



65° 2691 mm

6800400ENQv

5-Band, 10-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 2691 mm



F	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
OUT	R 1	698-960	1-2	4.3-10 Female Long Neck
A	¥1	1695-2690	3-4	4.3-10 Female Long Neck
A	Y2	1695-2690	5-6	4.3-10 Female Long Neck
ARR	Y3	1695-2690	7-8	4.3-10 Female Long Neck
٩	¥4	1695-2690	9-10	4.3-10 Female Long 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)	2691 (105.9)	
Width		mm (in)	398 (15.6)	
I		mm (in)	159 (6.2)	
/eight - Antenna Only		kg (lbs)	37 (81.5)	
anical Distance Betwee	en Mounting Points	mm (in)	Refer to Diagram	
oad	Calculation	km/h (mph)	150 (93.2)	
d Tunnel Coefficients)	Frontal	N (lbf)	1350 (303.4)	
	Lateral	N (lbf)	450 (101.1)	
	Rearside	N (lbf)	1600 (359.6)	
itional Wind Speed		km/h (mph)	160 (99.4)	
al Wind Speed		km/h (mph)	200 (124)	
ne Color			Gray RAL7035	
ne Material			FRP	
Lightning Protection			Direct Ground	
Shipping Dimensions (Length x Width x Depth)		mm (in)	2800 x 498 x 312 (110.2 x 19.6 x 12.2)	
Shipping Weight		kg (lbs)	52 (114.6)	
Shipping Volume	Shipping Volume		0.435 (15.3)	
	/eight - Antenna Only anical Distance Betwee oad Tunnel Coefficients) Itional Wind Speed al Wind Speed ne Color ne Material ing Protection Shipping Dimension Shipping Weight	/eight - Antenna Only anical Distance Between Mounting Points oad Tunnel Coefficients) Frontal Lateral Rearside al Wind Speed al Wind Speed ne Color ne Material ing Protection Shipping Dimensions (Length x Width x Depth) Shipping Weight	mm (in) /eight - Antenna Only mm (in) /eight - Antenna Only kg (lbs) anical Distance Between Mounting Points mm (in) oad Calculation km/h (mph) Frontal N (lbf) Lateral N (lbf) Itional Wind Speed km/h (mph) al Wind Speed km/h (mph) ne Color ne Material ing Protection Shipping Dimensions (Length x Width x Depth) mm (in) Shipping Weight kg (lbs)	

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.

CONNECTING PEOPLE + TECHNOLOGY



65° 2691 mm

6800400ENQv

5-Band, 10-Port, 65°, XPOL, Panel Antenna, Variable Tilt, 2691 mm

ENVIRONMENTAL SPECIFICATIONS

Environmental Standard		RoHS 2011/65/EU and ISO Certification 901/2015 & 14001/2015
Operating Temperature	° C (° F)	-40° to +55° (-40° to 131°)
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) <i>delivered as standard</i>	0900181/00	3.4 kg (7.5 lbs)
Brackets for pole Ø70 to Ø150 mm (Ø2.8-Ø5.9 in) optional	0900182/00	3.9 kg (8.6 lbs)
Kit to add mechanical tilt (0° to 10°) to above brackets optional	0900397/00	3.0 kg (6.6 lbs)

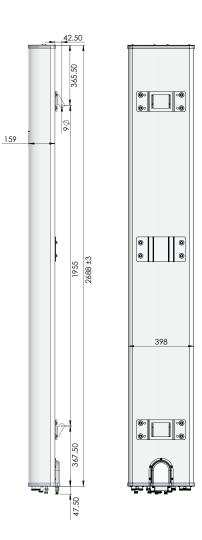
Wall mounting brackets are available upon request

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.



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.

CONNECTING PEOPLE + TECHNOLOGY www.amphenol-antennas.com