



# Low + Mid Tri-Sector with Internal RET

(1x) 698-960 MHz  
(2x) 1710-2690 MHz

3 x (6-Port)

## DO15X65V12D18TRI

### Features & Applications

- Tri-Sector with Internal RET antenna
- 2-port x 698-960 MHz, 4-port x 1710-2690 MHz
- H 65° / V 6.5°
- Gain : 15 dBi / 17 dBi



### ELECTRICAL SPECIFICATIONS

Port Information	-	<b>R1</b>		
Frequency Range	(MHz)	<b>698-806</b>	<b>790-862</b>	<b>880-960</b>
Gain (Mid Tilt)	(dBi)	15.3	15.4	15.1

#### Horizontal Pattern

Azimuth Beam width	(°)	73		74
Front-to-Back Ratio	(dB)	20	22	20
Cross Polar Discrimination at Boresight	(dB)	17		

#### Vertical Pattern

Elevation Beam width	(°)	11.5	10.5	10
First Upper Side Lobe Suppression	(dB)	15		
Electrical Down tilt continuously adjustable	(°)	2-12		

### ELECTRICAL SPECIFICATIONS

Port Information	-	<b>R1</b>				
Frequency Range	(MHz)	<b>1710-1880</b>	<b>1850-1990</b>	<b>1920-2170</b>	<b>2300-2400</b>	<b>2500-2690</b>
Gain (Mid Tilt)	(dBi)	16.2	16.6	16.8	16.7	16.7

#### Horizontal Pattern

Azimuth Beam width	(°)	72	64	63	69	72
Front-to-Back Ratio	(dB)	23	24	24	24	20
Cross Polar Discrimination at Boresight	(dB)	18			15	15

#### Vertical Pattern

Elevation Beam width	(°)	7.1	6.4	6.1	5.4	4.8
First Upper Side Lobe Suppression	(dB)	15				
Electrical Down tilt continuously adjustable	(°)	2-12				



# Low + Mid Tri-Sector with Internal RET

(1x) 698-960 MHz  
(2x) 1710-2690 MHz

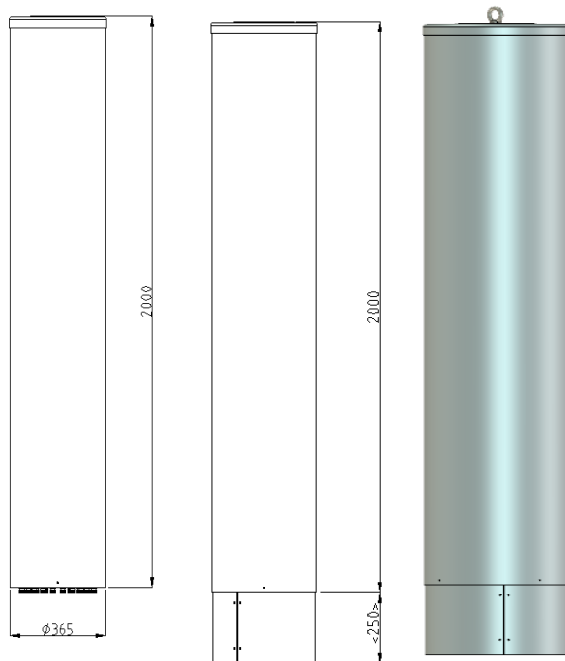
3 x (6-Port)

## GENERAL SPECIFICATIONS

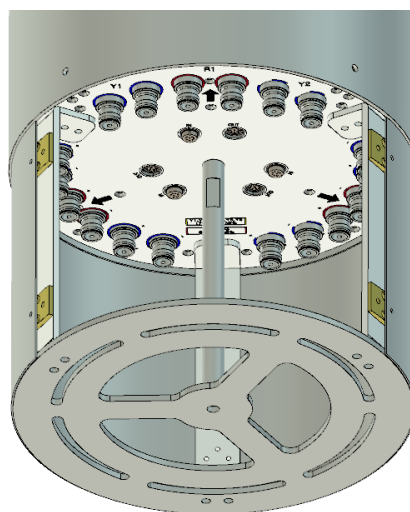
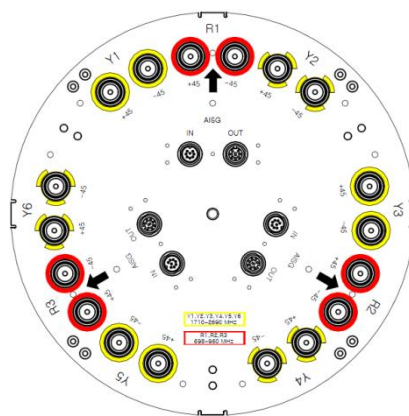
Isolation	(dB)	>25
Inter Band Isolation	(dB)	>30
VSWR	-	1.5 : 1
Polarization	(°)	±45
Intermodulation IM3	(dBc)	-153(2 x 43 dBm Carrier)
Impedance	(Ω)	50
Max. Effective Power per Port	(Watts)	250

## Mechanical Dimensions

### Outline



### Back side





# Low + Mid Tri-Sector with Internal RET

(1x) 698-960 MHz  
(2x) 1710-2690 MHz

3 x (6-Port)

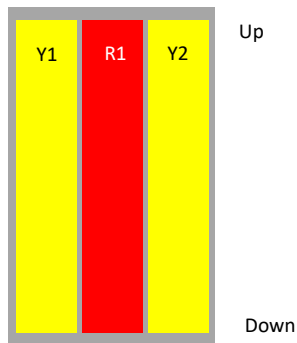
## MECHANICAL SPECIFICATIONS

Connector Type & Quantity	-	18 x 4.3-10 Female
Connector Position	-	Bottom
Antenna Dimension (H x D)	(inch / mm)	∅ 14.3 x 78.7 x 9.8 / ∅ 365 x 2000 x 250
Weight (without Mounting Kit)	(lb / kg)	99.2 / 45
Wind Load (@100 mph)	(N)	Front 970, Side 970, Rear 970
Max.Wind Speed (Survival Wind Speed)	(km/s)	150
Radome (Color)	-	FRP (Gray)

## Remote Electrical Tilt (RET)

Internal RET	-	ACS-RM800(internal replaceable RET)
Protocol	-	3GPP/AISG 2.0

## Array Information



Array	Frequency(MHz)	Connectors
R1	698-960	1-2
Y1-Y2	1710-2690	3-6



# 16-Port 3.5G(8T8R)+Mid(8T8R)

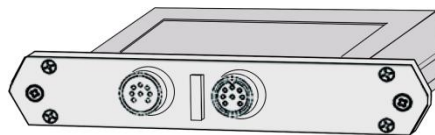
(4x) 1710-2690 MHz  
(4x) 3400-3800 MHz

16-Port

## Internal RET (Remote Electrical Tilting device)

### Features & Applications

- Remote Electrical Tilting device for Multi/Single antennas with electrical down-tilt
- Firmware updatable & Flexibly change mode( Multi or Single )
- Compliant to AISG 2.0 / 3GPP
- Compact size
- Max. 5 channel antenna control supports (Motors for titling are included)



### Technical Specification

Protocols	Compliant to AISG 2.0 / 3GPP
Input voltage range	+10 ~ +30VDC (pin 6)
Power consumption	< 2W (stand by); < 13W (motor activated)
Connectors (AISG)	2x8Pin Connector (IEC60130-9) According to AISG connect type : Male is input Female is output (Male/Female can be input and output)
Hardware interface (AISG)	RS485A/B (pin5/pin3); Power supply (pin6); DC return (pin7) Acc. to AISG
Adjustment time (full range)	10~120 Seconds (typical 40S, Depends different Antenna)
Temperature range	-40 ~ +70°C
Protection class	IP65
Adjustment Cycles	10000 times
Housing material	Body: Al ( Electrophoresis)
Weight	<945g



Thank you for your Consideration !

**gamma nu**  
*PIM FREE ANTENNA*

**Head Office in Korea**

185- 44, Geumgok-ro, Dongtan-myeon, Hwaseong-si, Gyeonggi-do, Korea  
Tel: +82) 31.831.8800~7  
sales@gammanu.com

**U.S Office**

151 N. Kraemer Blvd, Suite# 205 Placentia CA 92870  
T.(800) 909. 5221, F.(714) 646. 9908  
gnt.sales@gammanu.com