

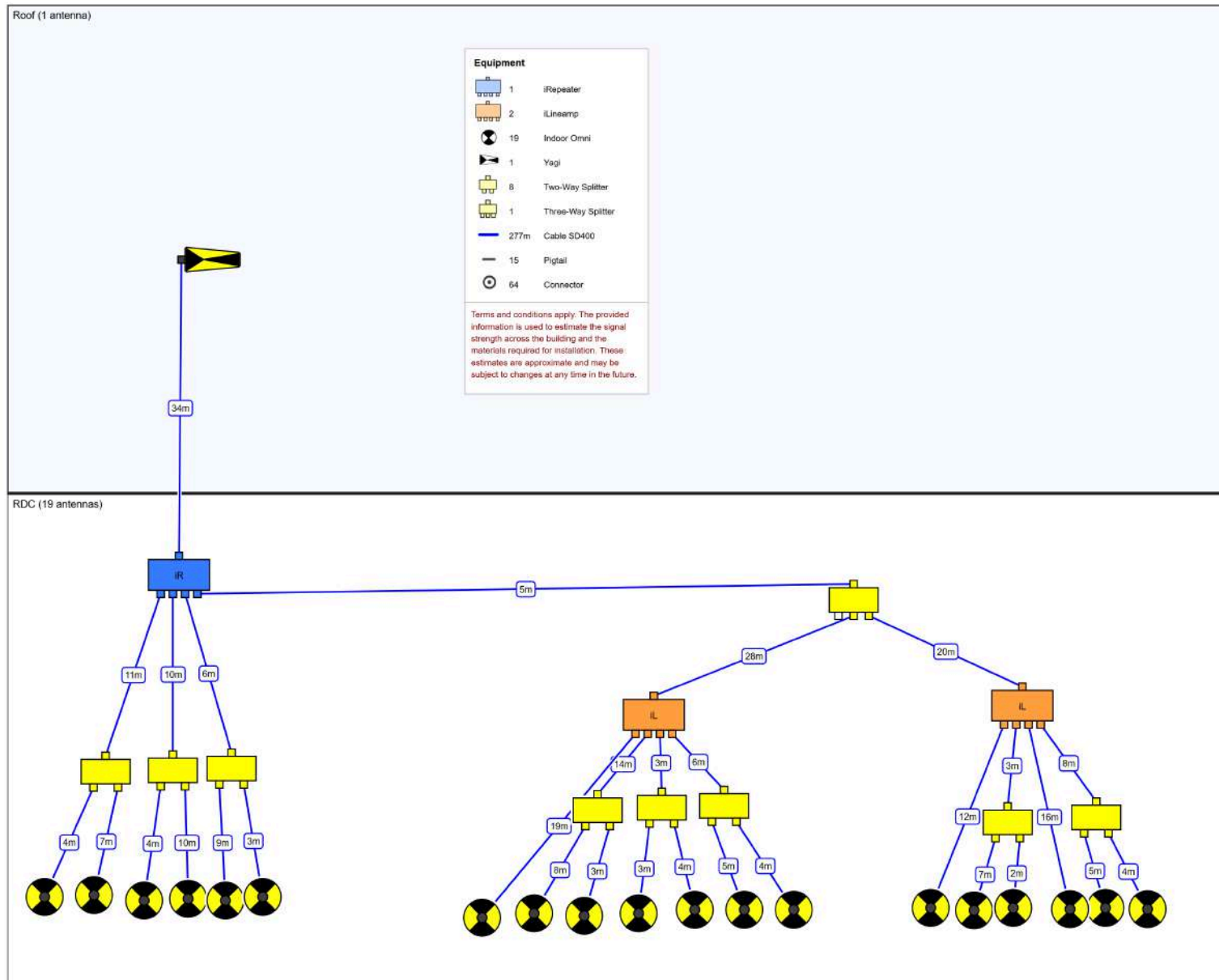
# Cellular Report

# Design





# Overview

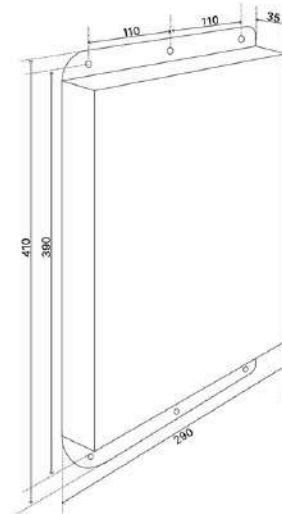




# Technical Specifications

## IREPEATER IR6-T

- Amplifies the signal from all operators for 5G/4G/3G/2G
- **PortSense Technology** confirms visually that cables and antennas are correctly connected.
- Monitor signal and repeater performance on **StellaControl platform**. Troubleshoot issues and adjust settings to ensure optimal coverage and reliability.
- **Future proofed** for all new technologies offered by the operators.



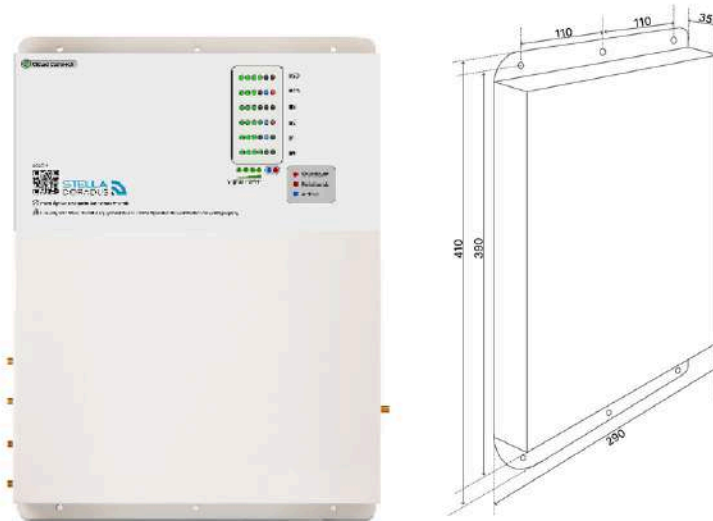
### Specification

Model	Titan iR6-T
BANDS	28/20/8/3/1/7
Weight	4kg
Dimensions	41 x 29 x 4.8cm
Bands	28/20/8/3/1/7
Coverage	up to 15 rooms with one Titan.
Gain (Uplink and Downlink)	65dB
Pass band ripple	<4dB
I/O impedance	50 ohm/SMA female connector
Max up/down signal strength	20dBm / 10dBm
Ambient Temperature	-30°C to +70°C
Power supply input	110 - 240V AC
Power supply output	12v DC
Oscillation Control	Automatic
AGC Level Control	Automatic
Uplink Switch On	Yes
AGC Range	0 to 30dB
Surge protection	12V DC port MOV protected
PortSense	Yes
Embedded modem	Yes



## LINE AMPLIFIER IL6-T

- Extends mobile signal a **further 100m** into the building.
- **PortSense Technology** confirms visually that cables and antennas are correctly connected.
- Monitor signal and repeater performance on **StellaControl platform**. Troubleshoot issues and adjust settings to ensure optimal coverage and reliability.
- **Future proofed** for all new technologies offered by the operators.



### Specification

Model	il6-T
Bands	28/20/8/3/1/7
Weight	4kg
Dimensions	43 x 30 x 4.8cm
Bands	28/20/8/3/1/7
Coverage	up to 15 rooms with one Titan.
Gain (Uplink and Downlink)	20dB
Pass band ripple	<4dB
I/O impedance	50 ohm/SMA female connector
Max up/down signal strength	0dBm / 10dBm
Ambient Temperature	-30°C to +70°C
Power supply input	110 - 240V AC
Power supply output	12v DC
Oscillation Control	Automatic
AGC Level Control	Automatic
Uplink Switch On	Yes
AGC Range	30dB
Surge protection	12V DC port MOV protected
PortSense	Yes
Embedded modem	Yes

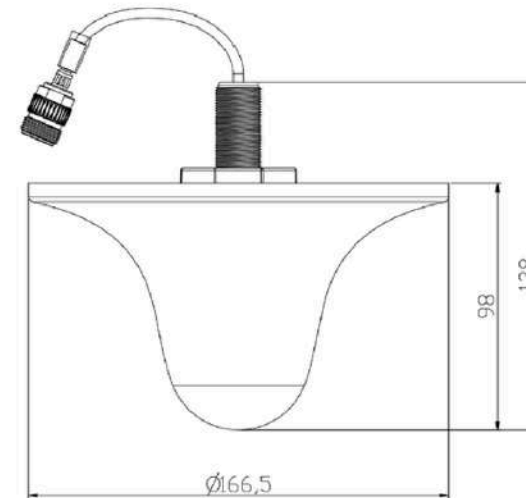


## OMNI ANTENNA

- 360deg coverage
- **Embedded Port Sense Technology** - Smart antenna with an integrated white LED which lights up when the cable connectors are correctly assembled.
- Full cellular coverage from **698MHz to 3500MHz**.
- Ceiling mount

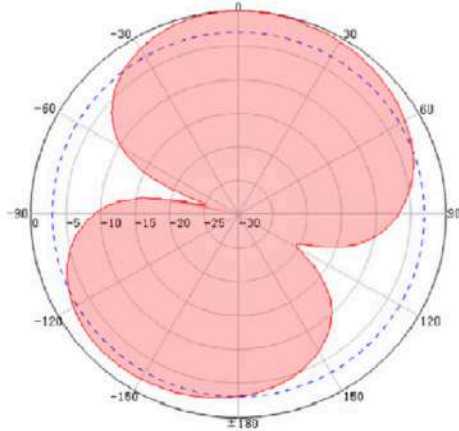
### Antenna Specification

Model	OMNIANT-DOME-NF
Frequency range	698 - 960 & 1710-2700 & 3500MHz
Gain	3dBi
VSWR	<1.5
Polarization	Vertical
Horizontal Beamwidth	360°
Impedance	50 Ohm
Max Power	50W
Connector	N-Female
Dimensions	18.5 x 9.5cm
Cover	ABS

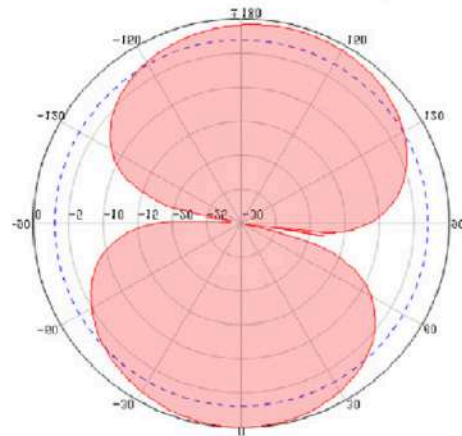




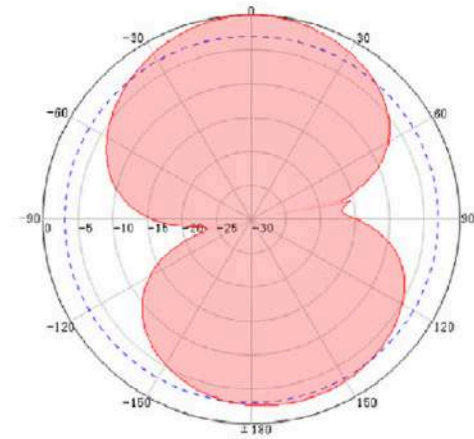
700MHz VERTICAL



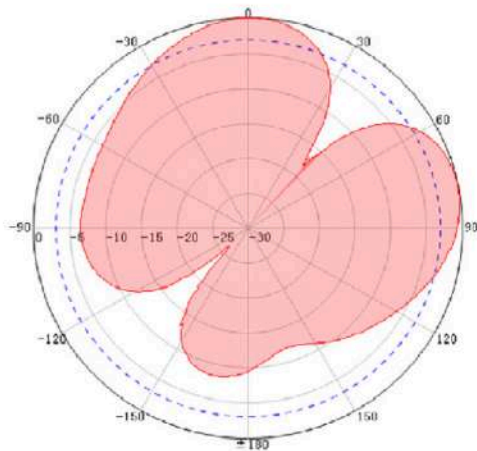
800MHz VERTICAL



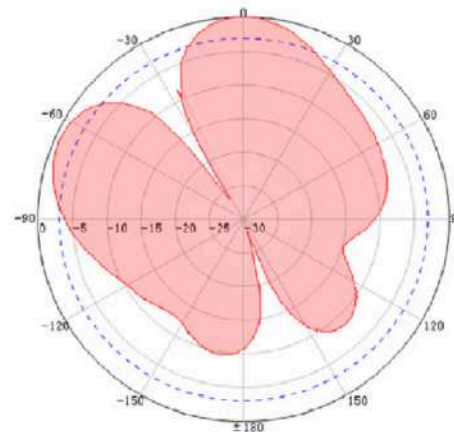
960MHz VERTICAL



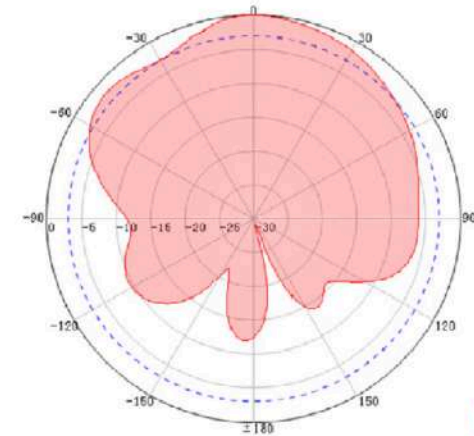
1800MHz VERTICAL



2100MHz VERTICAL

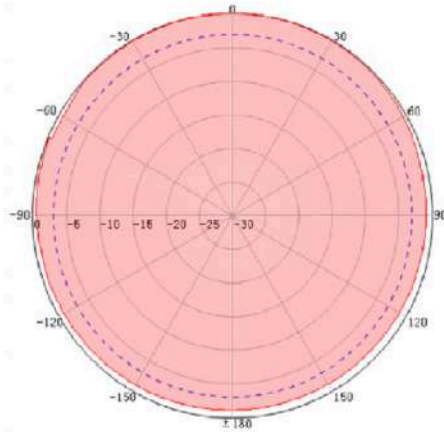


2600MHz VERTICAL

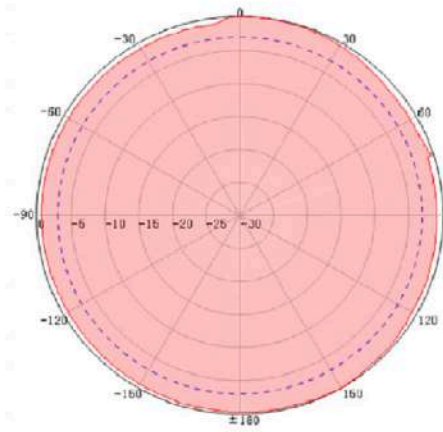




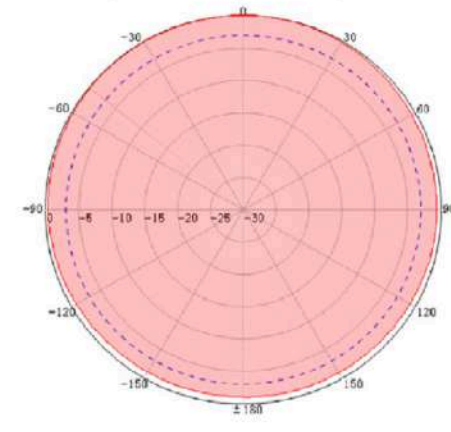
700MHz HORIZONTAL



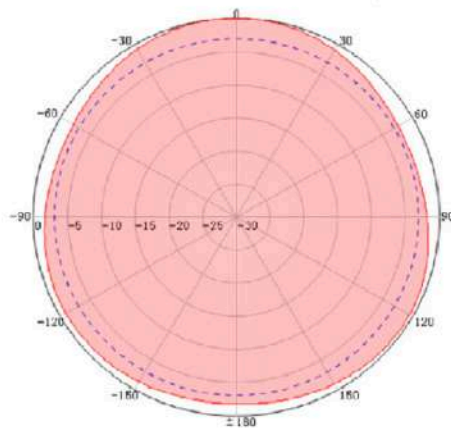
800MHz HORIZONTAL



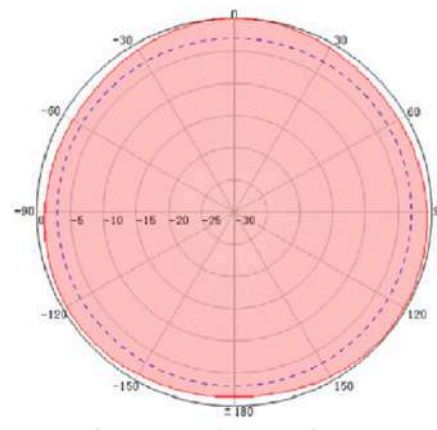
960MHz HORIZONTAL



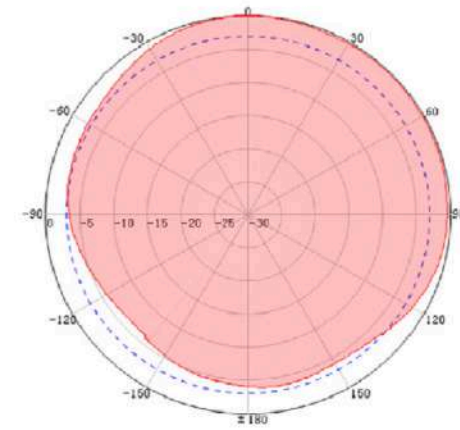
1800MHz HORIZONTAL



2100MHz HORIZONTAL



2600MHz HORIZONTAL

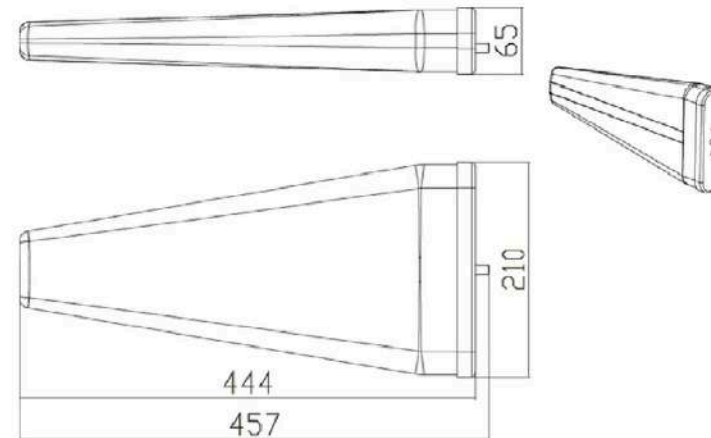
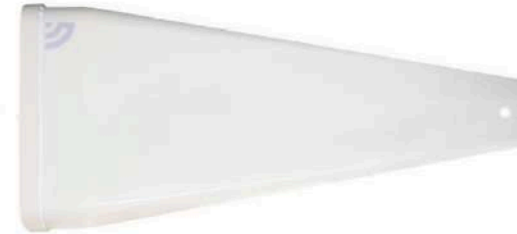


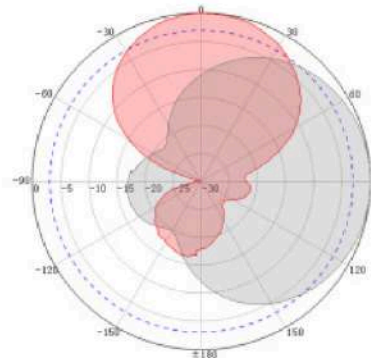
## YAGI ANTENNA

- **Embedded Port Sense Technology** - Smart antenna with an integrated white LED which lights up when the cable connectors are correctly assembled.
- Full cellular coverage from **698MHz to 3500MHz**.

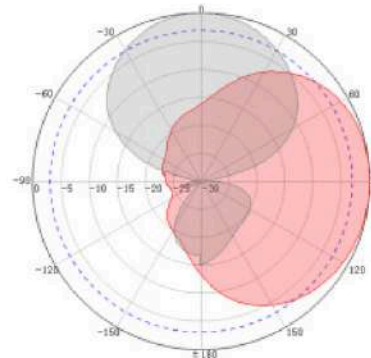
### Antenna Specification

Model	YAGIANT
Frequency range	698 - 960 & 1710-2700 & 3500MHz
Gain	10dBi / 11dBi
VSWR	≤1.5
Polarization	Vertical
PIM	28dBm
Horizontal Beamwidth	65° / 50°
Vertical Beamwidth	50° / 40°
Impedance	50 Ohm
Max Power	50W
Front to Back Ratio	≤15dB / ≤18dB
Connector	N-Female
Lightning Protection	DC Ground
Dimensions	44.2 x 20.5 x 6.2cm
Weight	1.2kg
Rated Wind Velocity	140km/h
Max Pole Diameter (for mounting)	<5cm
Working Temperature	-40°~+65°

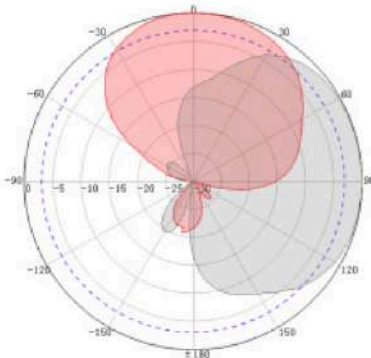




698MHz

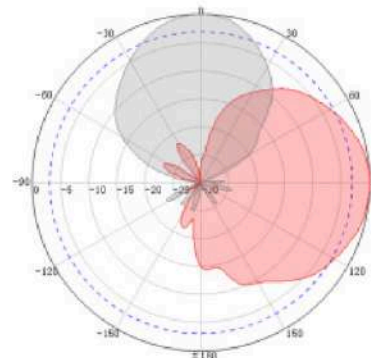


824MHz

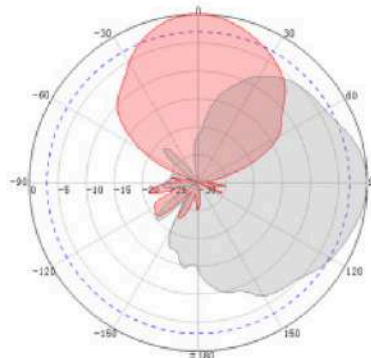


960MHz

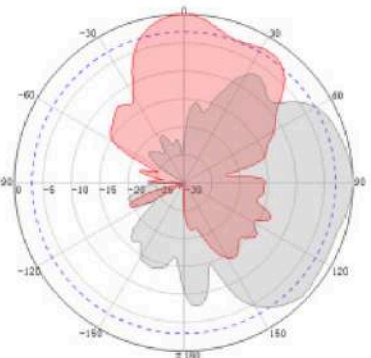
— Horizontal Polarization  
— Vertical Polarization



1710MHz



2200MHz



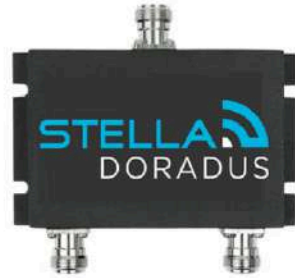
2700MHz



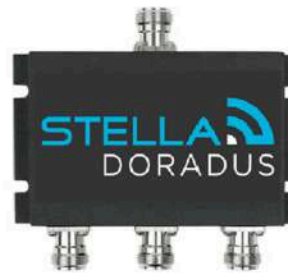
# Specification

## Splitters

2-way splitter



3-way splitter



4-way splitter



### Splitter Specification

Model	2-way splitter	3-way splitter	4-way splitter
Frequency range	700-3600MHz	700-3600MHz	700-3600MHz
Power Capacity	30W	50W	50W
Insertion loss	3.5dB	5dB	7.5dB
Isolation	≥ 20dB	≥ 20dB	≥ 20dB
VSWR	≤1.3	≤1.2	≤1.2
Connector	N-Female	N-Female	N-Female
Dimensions	7.6 x 8 x 2cm	11.5 x 9.4 x 1.9cm	11.5 x 11.5 x 2cm



Cable Specification

Model	SD-240	SD-400	SD-600
Attenuation at 900/1800/2000/2600 MHz	24.9/36.4/38.7/44 dB/100m	12.8/18.4/19.4/22.0 dB/100m	11.8/17.4/18.4/22.0 dB/100m
Jacket Colour	Black	Black	Black
Jacket Material	PE	PE	PE (UV resistant)
Braid Material	Aluminium	Aluminium	Tinned copper
Shield Tape Material	Aluminium	Aluminium	Aluminium
Dielectric Material	Foam PE	Foam PE	Foam PE
Inner Conductor Material	Copper wire	Copper-clad aluminium wire	Copper-clad aluminium wire
<b>Dimensions</b>			
Diameter Over Dielectric	3.81mm	7.24mm	11.56mm
Diameter Over Jacket	6.1mm	10.29mm	14.99mm
Inner Conductor OD	1.42mm	2.74mm	4.47mm
Normal Size	6.1mm	10.29mm	14.99mm
Outer Conductor OD	4.52mm	8.08mm	11.71mm
<b>Electrical Specifications</b>			
Cable Impedance	50 ohm	50 ohm	50 ohm
Capacitance	80pF/m	78pF/m	76.6pF/m
dc Resistance, Inner Conductor	10.83 ohms / km	4.49 ohms / km	1.7 ohms / km
dc Resistance, Outer Conductor	12.76 ohms / km	5.61 ohms / km	3.9 ohms / km
dc Test Voltage	2000 V	3000 V	4000 V
Jacket Spark Test Voltage (rms)	5000 V	8000 V	8000 V
Maximum Frequency	31.0 GHz	16.2 GHz	9.3 GHz
Operating Frequency Band	30 - 6000MHz	30 - 6000MHz	0 - 9300MHz
Peak power	5.6kW	16kW	40kW
Shielding Effectiveness	>90 dB	>90 dB	>90 dB
Velocity	0.83	0.85	0.85

