

## Excellent Integrated System Limited

Stocking Distributor

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[Taoglas Limited](#)  
[IAA.01.121111](#)

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IAA.01.121111

## Specification

Iridium® Certified

<b>Part No.</b>	IAA.01.121111
<b>Product Name</b>	External Magnetic Mount Iridium Antenna
<b>Feature</b>	1616MHz ~1626.5MHz Custom cables and connectors available Iridium® has certified the IAA.01.121111 Antenna for commercial use in connection with the Iridium Communications System RoHS Certified



## 1. Introduction

The IAA.01 is a high performance magnetic mount antenna which is designed specific to communicate efficiently with the Iridium® Satellite Communication system.

The IAA.01 utilises the Taoglas expertise in ceramics by incorporating a ceramic patch tuned specifically for the antenna

environment, giving greater stability. The antenna housing is strong, corrosive proof and waterproof to IP67.

The magnetic mount allows for easy installation and removal between vehicles or assets, it is easily converted to an adhesive type for greater flexibility.

Iridium® has certified the IAA.01.121111 Antenna for commercial use in connection with the Iridium Communications System. Iridium Satellite LLC is the owner of “Iridium” and all other Iridium trademarks, service marks and logos contained herein.

## 2. Specification

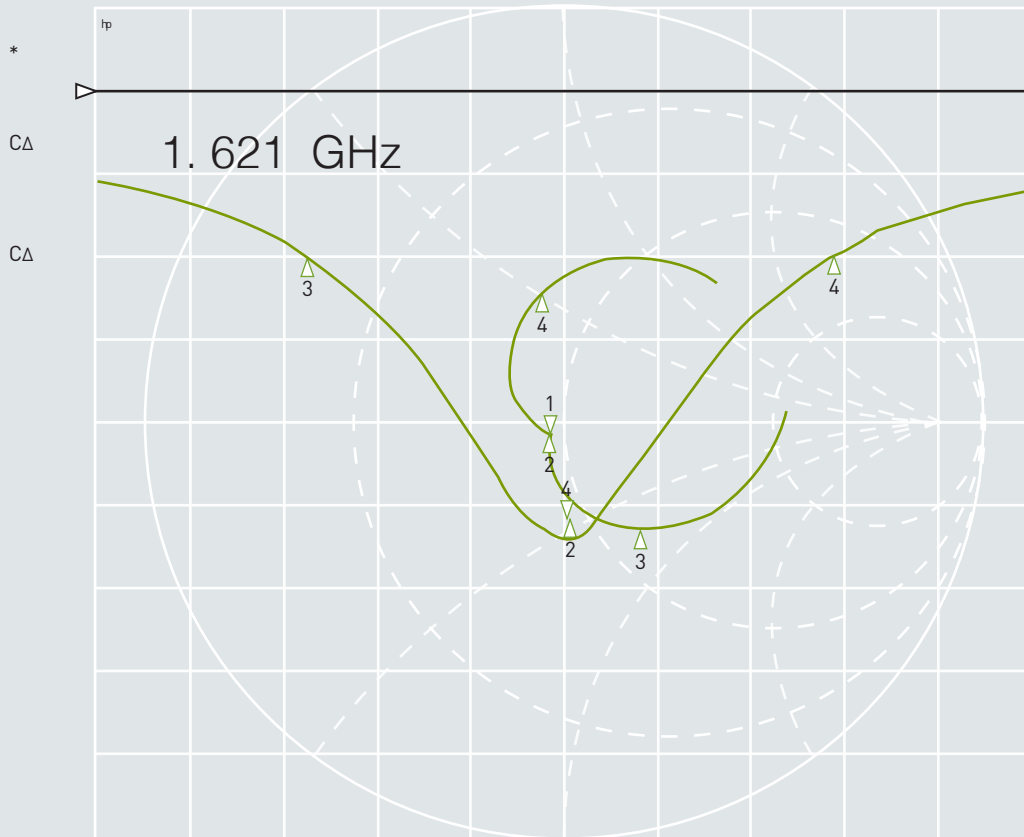
### Electrical

<b>Frequency Range</b>	1616Mhz~1626.5Mhz
<b>Centre Frequency</b>	1621.5MHz ± 5.25MHz
<b>Bandwidth</b>	15MHz
<b>Impedance</b>	50 Ohms
<b>Polarization</b>	RHCP
<b>VSWR</b>	1.5 Max (at centre frequency)
<b>Connector</b>	SMA(M)plug
<b>Cable</b>	RG-174
<b>Termination</b>	Ag (Environmentally-Friendly PB Free)
<b>Operation Temperature</b>	-40°C to + 85°C
<b>Storage Temperature</b>	-40°C to + 85°C
<b>Relative Humidity</b>	40% to 95%
<b>Dimensions</b>	40.5*38*12.3mm



### 3. Performance Measurement and Results

CH1 RFL LOG 5 dB/REF 0 dB 1: -25.868 dB 1 621.000 000 MHz  
 CH3 RFL 1 U FS 1: 46.320 Ω -3.2461 Ω 30.247 pF



CH1 Markers  
 BW: 22.553080 MHz  
 cent: 1621.175680 MHz  
 Q: 71.883  
 1 loss: -25.868 dB

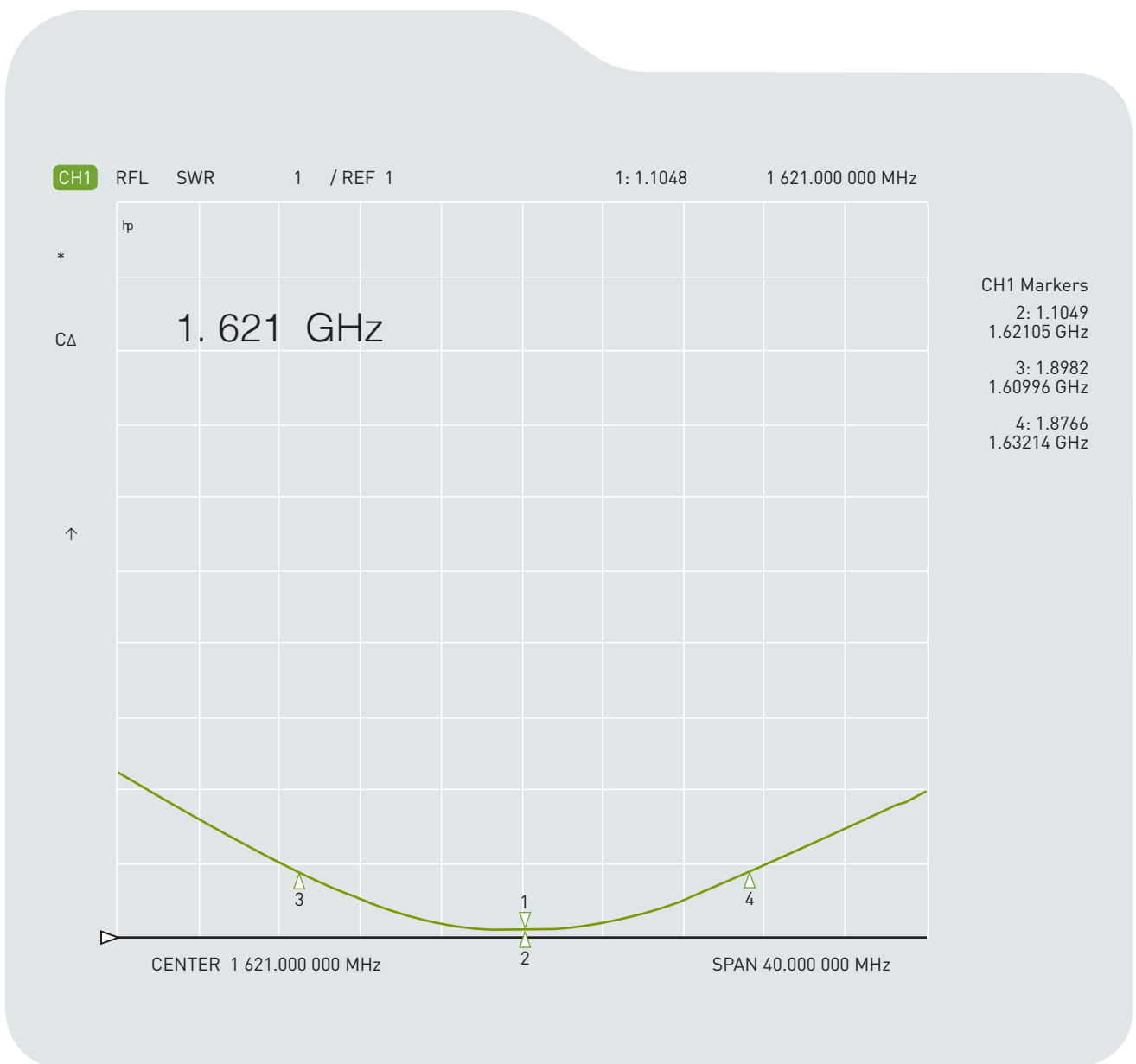
CH3 Markers  
 2: 46.213 Ω  
 -3.1426 Ω  
 1.62117 GHz  
 3: 60.857 Ω  
 -35.135 Ω  
 1.60989 GHz  
 4: 36.963 Ω  
 25.525 Ω  
 1.63245 GHz

CENTER 1 621.000 000 MHz

SPAN 40.000 000 MHz



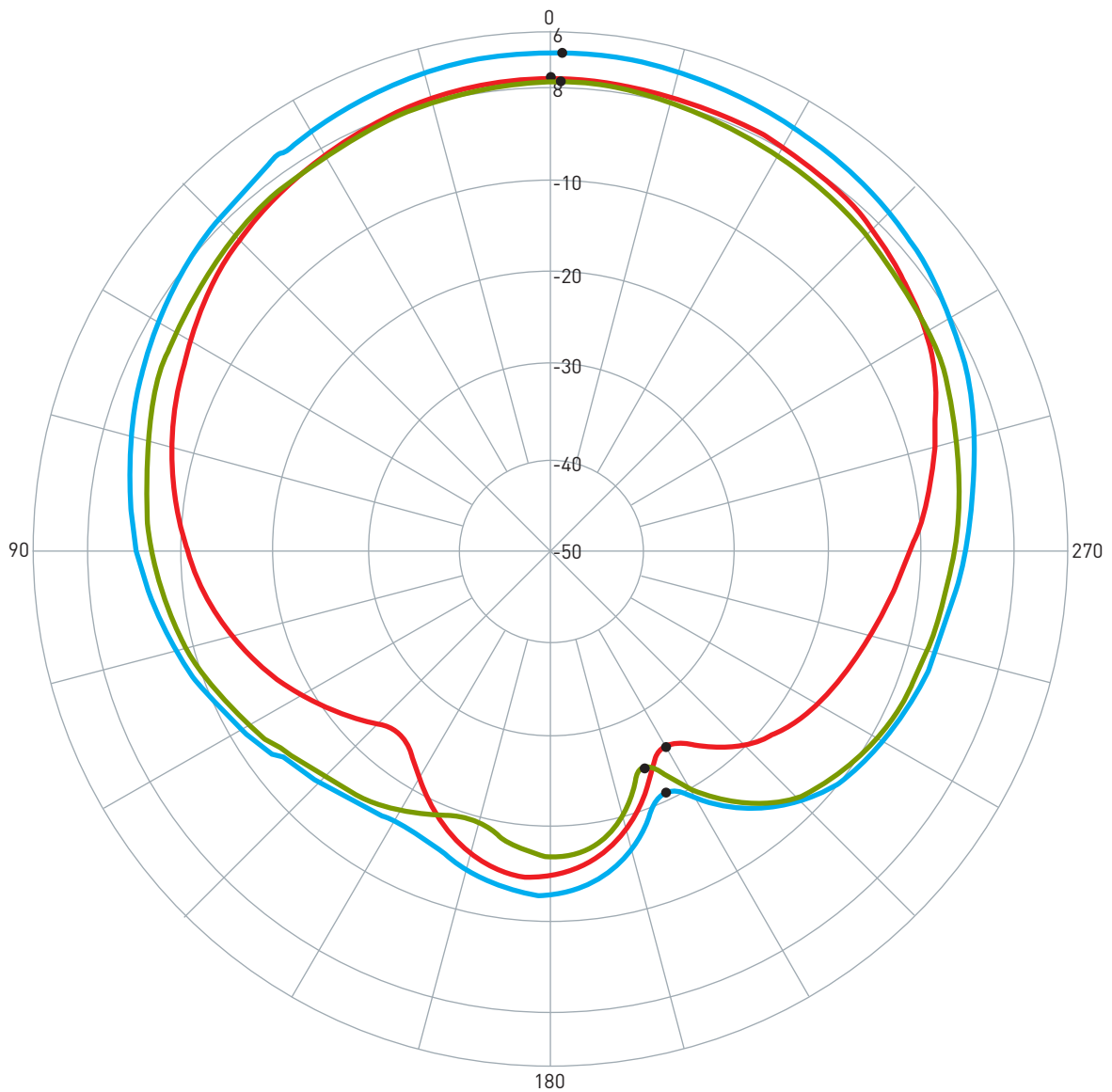
## 4. VSWR





## 5. Antenna Gain Chart

XZ-Plane

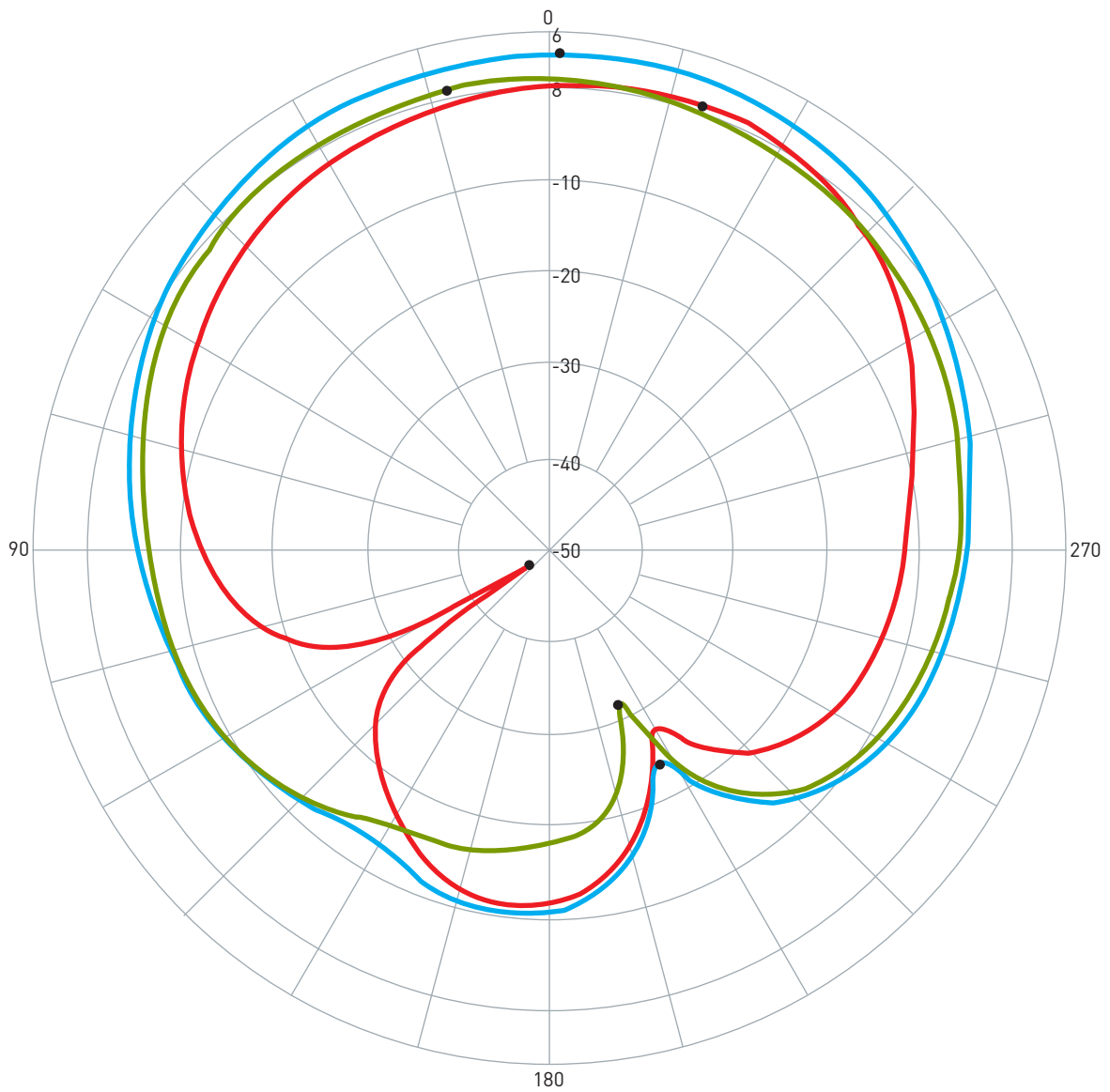


Pattern	Model No.	Test Mode	Freq (MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.
1	IAA.01.121111	XZ	1621.25	0.79 / 0.00	-25.44 / 210.00	-4.69	Ver
2	IAA.01.121111	XZ	1621.25	0.64 / 359.00	-24.51 / 203.00	-4.37	Hor
3	IAA.01.121111	XZ	1621.25	3.70 / 359.00	-21.07 / 205.00	-1.52	V+H



## 5. Antenna Gain Chart

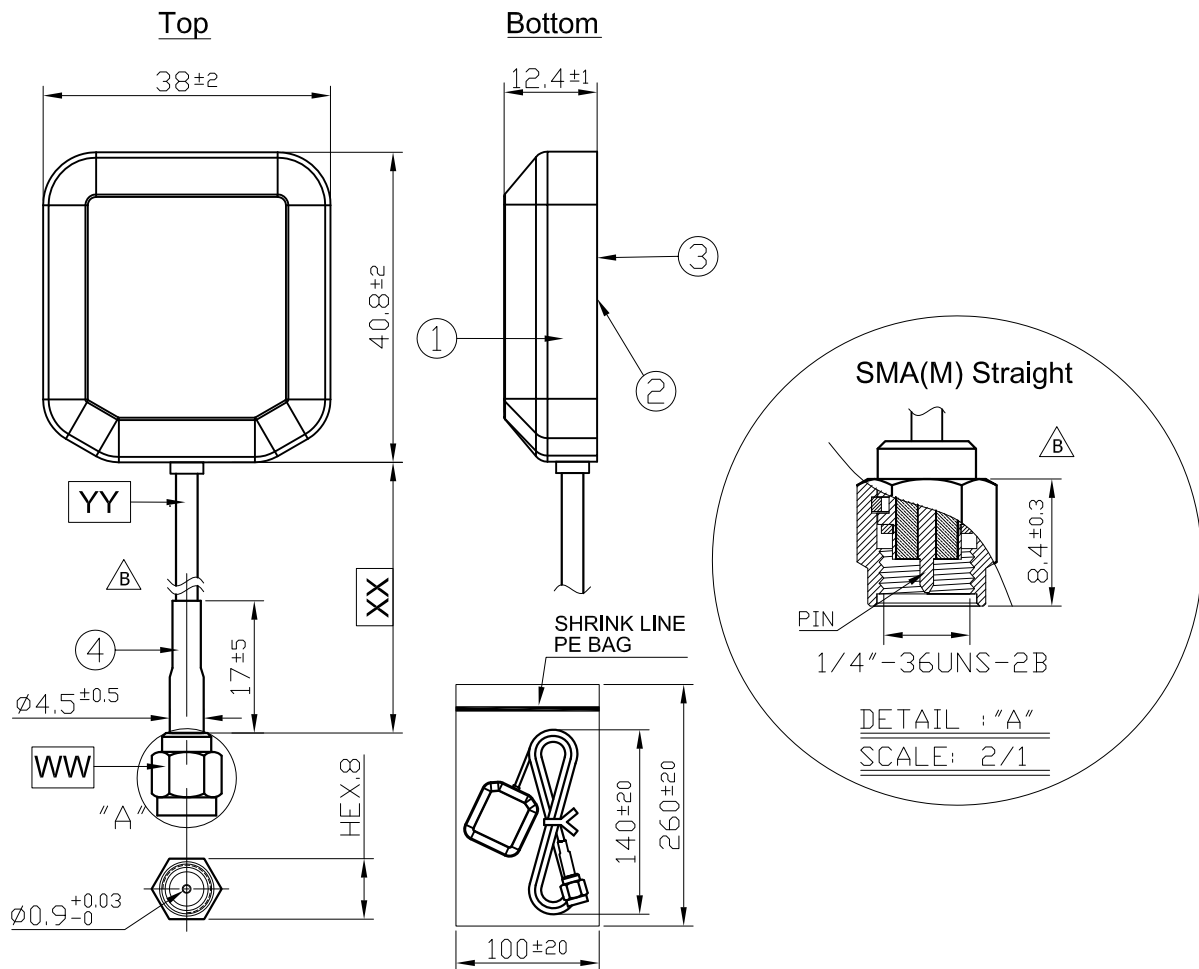
YZ-Plane



Pattern	Model No.	Test Mode	Freq (MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.
1	IAA.01.121111	YZ	1621.25	0.61 / 341.00	-47.14 / 123.00	-5.35	Ver
2	IAA.01.121111	YZ	1621.25	0.78 / 13.00	-31.74 / 204.00	-3.74	Hor
2	IAA.01.121111	YZ	1621.25	3.48 / 359.00	-24.07 / 207.00	-1.46	V+H



## 6. Drawing



	Name	Material	Finish	QTY
1	Iridium Antenna Top	PC	Black	1
2	Iridium Antenna Bottom	PC	Black	1
3	Sticker	Coated Paper	Black	1
4	Heat Shrink Tube	PE	Black	1

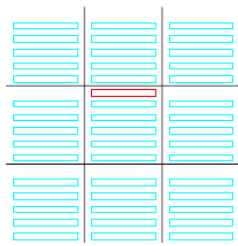
	Name	Material	Finish	QTY
WW	Connector Type	SMA(M) Straight	Gold	1
XX	Cable Length	1200±30mm		1
YY	Cable Type	RG174	Black	1



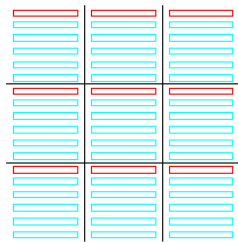


## 7. Packing Details

100 Units / Carton



Upper Layer: 46 Pieces



Lower Layer: 54 Pieces

