## SYNERGY TELECOM PVT LTD

# CATALOG PRODUCT

#### MILITARY ANTENNA

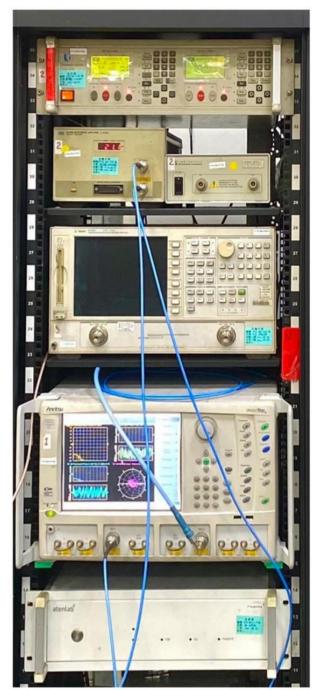
Jammer Antenna, Vehicle Mounted, Handheld & Manpack Antenna

#### HORN ANTENNA

EMC, EMI Antenna

#### OUTDOOR ANTENNA

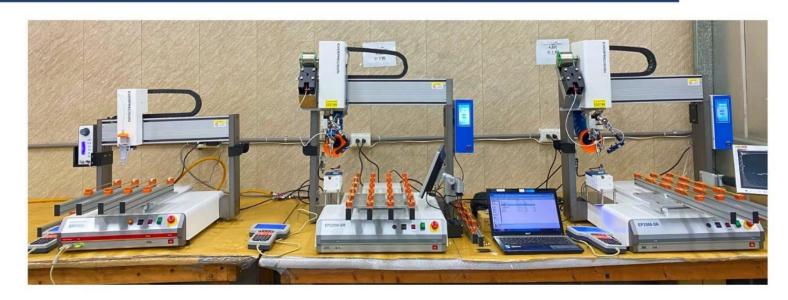
LoRa 868MHz, 915 MHz & 923 MHz RF Connector, Adapter







# **Featured Equipment**



# MILITARY ANTENNA

**FEATURED PRODUCT** 

CONTACT US info@synergytpl.com

### Featured products

# Pan tilt (PTZ)

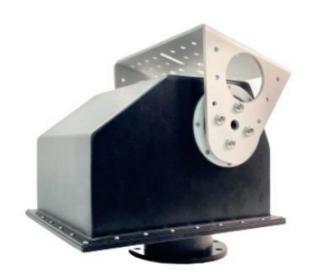
•Dimension: 120x60x23mm

•Payload: 20kg

•Software control and combination with Smart sensors & Al service

We focused on producing a proper application for this product, which allows you to load a range of antennas, such as a dish or a horn, in sizes ranging from large to small, while controlling the rotational orientation. Pan tilt can be used with a computer, and we also make a repeater, which is a compatible device that can be used with pan tilt. These are two devices that may be used separately, but when combined, they provide the best effect. With a load capacity of up to 20 kg, the pan-tilt is a medium-sized pan-tilt designed for optimal load balance. By balancing the load with a counterweight, this sort of pan tilt can manage huge and heavy loads like enormous antenna dishes... The pan-tilt is composed of aluminum with stainless steel connectors.





# **Military Vehicle**

Antennas for **Military vehicles** or **Vehicular antennas** for heavy-duty use, such as in the forest or in remote locations on armored vehicles, and low-profile antennas for civil vehicles.

Communication and EW applications are examples of applications. Wideband mobile VHF antennas with frequency ranges of 30 to 88 MHz or 30 to 108 MHz are designed primarily for use in heavy-duty mobile applications. Typically, the antenna is made up of three major parts: the antenna base, the lower part, and the upper part. Some antennas have two sections, while others have three. The long-lasting antenna base with GPS (optional).

The stainless-steel spring absorbs shocks and vibrations while also protecting the antenna from collisions.

# 30-88MHz Military BNC-Female Vehicle Antenna BNC-Female Type: B Model: ST-3088M02B-BF

#### **Electrical specification**

Frequency Range	30MHz to 88MHz
V.S.W.R (AVG)	3.5:1
Antenna Type	Collinear
Radiation	Omni Directional
Gain (Avg)	-2dbi to 2dbi
Polarization	Vertical
Power	100 Watts
Vertical Beamwidth	89deg
Horizontal Beamwidth	360deg
Impedance	500hm
Antenna Design	Dipole
Internal Material	Copper
Connector	BNC-Female

Antenna length		3326.5mm±5%
Antenna Section length	Upper	1457.5mm
	Lower	1798.5mm
Antenna base		227x140x140mm
Antenna weigh	nt (N.W)	4.2kg
Application		Outdoor
Radome Mater	rial	Paint Green Fiberglass+UV
Base Material		Copper, nickel-plated, Green painted
Wind Survival		Greater then 150MPH
Storage Temperature		-50 to +60
Operating Temperature		-50 to +75
Operating Humidity		10%~90% non-condensing
Storage Humid	ity	5%~90% non-condensing
Safety, Emission and other		RoHS

### **Antenna mounted**

### 30-88 MHz Whip Dipole Broadband with GPS Antenna Model: ST-3088M02E-BF

### **Electrical specification**

Frequency	30 - 88 MHZ
V.S.W.R (MAX)	3.5:1
Radiation	Omni directional
Gain	-2 dbi to 2 dbi
Polorization	vertical
Power	100 CW
Vertical beamdwidth	89 Degree
Horizontal beamwidth	360 degree
Impedance	50 Ohm
Connector	BNC - Female



Antenna dimension		3229±50x125x125m m
Antenna section	upper	1023±30mm
	middle	1124.5±30mm
length	lower	1124.5±30mm
Antenna we (N.W)	eight	4 kg
Radome Material		Paint Green Fiberglass +UV
Base Material		Copper, Nickel- plated, Green painted
Wind Survival		>150MPH
Storage Temperature		-50 to +60
Operating Temperature		-50 to +75
Operating Humidity		10%~90% non- condensing
Storage Humidity		5%~90% non- condensing
Safety, Emission and other		RoHS

# Military vehicle

# 4.8M HF Antenna and 7.5mm Spring Short Antenna Base Model: ST-0130M02A-48-BS75 (FT-4)

### **Electrical specification**

Frequency	1.5 MHz – 30 MHz
V.S.W.R (MAX)	3.5 :1
Radiation	Omni Directional
Gain	-2 dbi to 2 dbi
Polarization	Vertical
Power	400 – 1000W



Antenna Length		5.1 to 5.2m±5%
Antenna	Upper	1222.5mm
	middle 1	1213.5mm
Section length	middle 2	1246.5mm
	lower	1267.5mm
Antenna weight		4.5kg±5%
Wind velocity		120 km/h
Environmental Test		MIL-STD-810G method 509.5
Temperature range		-40 to 70 °C

# **Antenna mounted**

# 20 MHz -120 MHz VHF Military Dipole Broadband Antenna Model: ST-20120G-BF-G28-SF

### **Electrical specification**

Frequency Range	20 MHz to 120 MHz
V.S.W.R (Avg)	≤3.5:1
Antenna Type	Collinear
Gain (AVG)	0.2dBi (Max: 1.8 dBi)
Polarization	Vertical
Maximum Power (CW)	100 Watts
Impedance	50Ohm
Antenna Design	Dipole Antenna
Internal Material	Copper
Connector	SMA-Female

#### **GPS**

Frequency Range	1575.42±3 MHz
V.S.W.R	≤2:1
Impedance	50 Ohm
LNA	28DB
Voltage/ Current	3:5 VDC/ 12A

Antenna total length		3570mm
Antenna Section	Upper	1200mm
	middle	1200mm
length	lower	1100mm
Antenna	section	2.3kg
Antenna I Weight	Base	2.1kg
Radome Material		Paint Green Fiber glass +UV
Wind Survival		Greater than 160KM/H
Storage Temperature		-40 to +80
Operating Temperature		-40 to +60
Operating Humidity		10%~90% non- condensing
Storage Humidity		5%~90% non- condensing
Safety, Emission and other		RoHS

# **Military Marine**

Military Marine Antenna is designed to be used with military, private, or commercial applications where reliability is needed most, especially for water environments. This antenna works with all radios within the 1.5 MHz to 30 MHz bands.

Robust and tough, this antenna is housed in a thick fiberglass radome, white color, and is constructed from corrosion-resistant materials for reliability in the harshest environments.

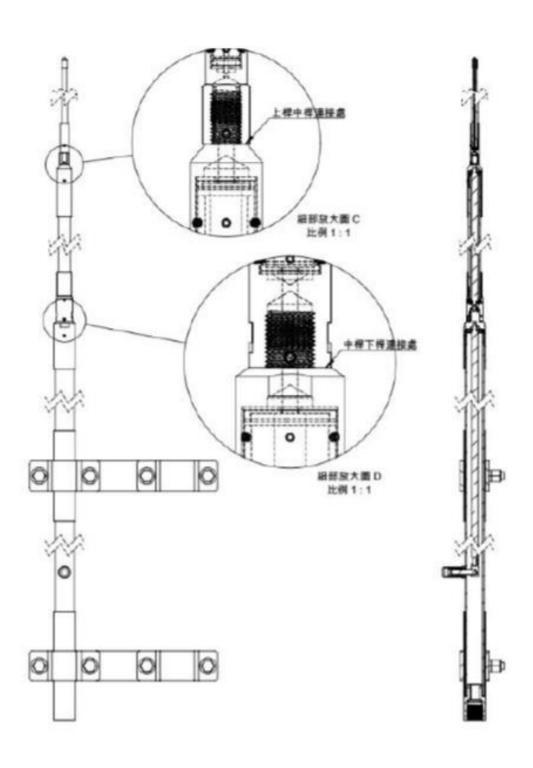
# 7.5M Self-Supporting HF Transmitting Antenna for Mast Mounting Model: ST-7500

#### **Electrical specification**

Frequency Range	1.5 - 30 MHz
Antenna Type	Self-supporting antenna element
Polarization	Vertical
Maximum Power	500W
Connector	M8 screw type

Antenna total length		7500mm±5%
Antenna section	Upper	2511mm±5%
	Middle	2564mm±5%
length	Lower	2535mm±5%
Antenna v	veight	4.3kg±5%
Clamps W	eight eight	3.14kg (1.57kg x2)±5%
Radome Material		Shroud: Glass fiber Metal parts: Chromed brass
Wind Survival		200km/h
Storage Temperature		-40+80
Operating Temperature		-40 to +60
Operating Humidity		10%~90% non- condensing
Storage Humidity		5%~90% non- condensing
Safety, Emission and other		RoHS

# **ANTENNA**



## Jammer Antenna

Jammer Antenna for Vehicles is installed in the appropriate vehicles, which are wideband antennas for high-performance communication and jamming applications working in the frequency range of 200-6800 MHz

These antennas provide a high-powered, ultra-efficient mobile multi-band jamming System that can be installed in any suitable vehicle. The System simultaneously jams the most widely used RF frequency bands, including cellular (CDMA, TDMA, GSM, HGSM, etc.), satellite, and computer network (WLAN, Wi-Fi, Bluetooth).

#### ST-05M06G03A-NF

• Frequency: 500 - 6000MHz

• Gain: 3dBi

• Max power: 500W

• Dimension: 140xL150mm

Weight: 1kg



#### ST-1740G03A-NF

• Frequency: 1700 - 4000MHz

• Gain: 3dBi

Max power: 200W

• Dimension: 140xL209mm

• Weight: 1.1kg

#### ST-200500M03A-NF

• Frequency: 200 - 500MHz

• Gain: 3dBi

Max power: 500W

• Dimension: 120xL980mm

• Weight: 4kg

#### ST-433M03-NF

• Frequency: 380 - 520MHz

• Gain: 3dBi

• Max power: 500W

• Dimension: 140xL431mm

• Weight: 2.7kg

#### ST-0608M02T8-BM

• Frequency: 600-800MHz

• Gain: 5dBi

• Max power: 300W • Dimension: 140xL600

• Weight: 3kg

#### ST-8697M03-NF

• Frequency: 680-1100MHz

• Gain: 3dBi

Max power: 500W

• Dimension: 140xL311mm

• Weight: 2.2kg

#### **ST-08M1GM02T8-BM**

• Frequency: 800-1000MHz

• Gain: 2dBi

Max power: 300W

• Dimension: 140xL450

• Weight: 2.8kg

## For Vehicles

#### ST-8494M03-NF

• Frequency: **840-960MHz** 

• Gain: 3dBi

Max power: 300W

• Dimension: 140xL450

• Weight: 2.8kg

#### ST-1112G03-NF

• Frequency: 800-1.4GHz

• Gain: 3dBi

Max power: 300W

• Dimension: 140xL291mm

• Weight: 2.1kg

#### ST-1213G03-NF

• Frequency: **700-1600MHz** 

• Gain: 3dBi

• Max power: 300W

• Dimension: 140x281mm

• Weight: 2.1kg

#### ST-1314G03-NF

• Frequency: **1000-1800MHz** 

• Gain: 5dBi

Max power: 300W

• Dimension: 140xL246mm

• Weight: 2kg

#### ST-1516G03-NF

• Frequency: 1320-1700MHz

• Gain: 3dBi

• Max power: 300W

• Dimension: 140xL249mm

• Weight: 1.1kg

#### ST-1418G05T3-NF

• Frequency: **1400-1800MHz** 

• Gain: 3dBi

Max power: 200W

• Dimension: 140xL610mm

• Weight: 2.5kg

#### ST-1719G03A1-NF

• Frequency: **1600-2300MHz** 

• Gain: 3dBi

• Max power: 200W

• Dimension: 140xL239mm

• Weight: 1.1kg

#### ST-1922G03A1-NF

• Frequency: **1600-2700MHz** 

• Gain: 5dBi

• Max power: 250W

• Dimension: 140xL249mm

• Weight: 1.2kg

#### ST-2425G03-NF

• Frequency: 1700-3000MHz

• Gain: 3dBi

• Max power: 200W

• Dimension: 140xL209mm

• Weight: 1.1kg

#### ST-2527G03-NF

• Frequency: **1700-3000MHz** 

• Gain: 3dBi

• Max power: 200W

• Dimension: 140xL189mm

• Weight: 1.1kg

## **Jammer Antenna**

#### ST-1820G07T3-NF

• Frequency: **1800-2000MHz** 

• Gain: 7dBi

Max power: 200W

• Dimension: 140xL700mm

• Weight: 2.5kg

#### ST-2022G07T3-NF

• Frequency: **2000-2200MHz** 

• Gain: 7dBi

Max power: 200W

• Dimension: 140xL650mm

Weight: updating

#### ST-2630G07T3-NF

• Frequency: **2600-3000MHz** 

• Gain: 7dBi

• Max power: 200W

• Dimension: 140xL540mm

• Weight: 2.5kg

#### ST-2226G07T3-NF

• Frequency: **3600-4000MHz** 

• Gain: 7dBi

• Max power: 200W

• Dimension: 140xL445mm

• Weight: 2.5kg

#### ST-3436G07T3-NF

• Frequency: 3400-3600MHz

• Gain: 7dBi

• Max power: 250W

• Dimension: 140xL445mm

• Weight: 2.5kg

#### ST-3640G07T3-NF

• Frequency: **3600-4000MHz** 

• Gain: 7dBi

Max power: 250W

• Dimension: 140xL445mm

• Weight: 2.5kg



# For vehicles



ST-1740G03A-NF with Green painted



ST-1740G03A-NF with Black painted



ST-200500M03A-NF with frequency from 200 MHz to 500 MHz



ST-8697M03-NF with frequency from 680 MHz to 1100 MHz

## Jammer Antenna

Jammer Antenna for Vehicles spring design is installed in the appropriate vehicles, which are wideband antennas for high-performance communication and jamming applications with spring design, has the effect of reducing shock when moving, as well as reducing breakage, particularly for antennas with longer lengths.

These antennas provide a high-powered, ultra-efficient mobile multiband jamming STstem that can be installed in any suitable vehicle. The STstem simultaneously jams the most widely used RF frequency bands, including cellular (CDMA, TDMA, GSM, HGSM, etc.), and computer network (WLAN, Wi-Fi, Bluetooth).

#### ST-0406M02S-NF

• Frequency: 400 - 600MHz

• Gain: 2dBi

• Max power: 300W

• Dimension: 140xL721mm

• Weight: 3.6kg

#### ST-1418G05S-NF

• Frequency: 1.4-1.8GHz

• Gain: 5dBi

Max power: 150W

• Dimension: 140x752mm

• Weight: 3.8kg

ST-1820G07S-NF

ST-0608M02S-NF

• Gain: 2dBi

• Max power: 300W

• Weight: 3.3kg

• Frequency: **1.8-2.0GHz** 

• Frequency: **600 - 800MHz** 

• Dimension: 140xL681mm

• Gain: 7dBi

Max power: 120W

• Dimension: 140xL841mm

• Weight: 3.8kg

#### ST-2022G07S-NF

• Frequency: 2.0-2.2GHz

• Gain: 6.5dBi

Max power: 120W

• Dimension: 140xL786mm

• Weight: 3.7kg

#### ST-3436G07S-NF

• Frequency: **3.0-4.0GHz** • Center Freq: 3.4-3.6GHz

• Gain: 7dBi

Max power: 100W

• Dimension: 140xL587mm

• Weight: 3.4kg

# With Spring

#### ST-08M1G02S-NF

• Frequency: **800 - 1000MHz** 

• Gain: 2dBi

• Max power: 200W

• Dimension: 140xL571mm

• Weight: 3.3kg

#### ST-1014G05S-NF

• Frequency: 1-1.4GHz

• Gain: 5dBi

• Max power: 150W

• Dimension: 140xL681mm

• Weight: 3.6kg

#### ST-2226G07S-NF

• Frequency: 2.2-2.6GHz

• Gain: 6.5dBi

• Max power: 120W

• Dimension: 140xL786mm

• Weight: 3.7kg

#### ST-2630G07S-NF

• Frequency: 2.6-3.0GHz

• Gain: 6.5dBi

• Max power: 120W

• Dimension: 140xL681mm

• Weight: 3.6kg

#### ST-3640G07S-NF

• Frequency: 3.3-4.2GHz

• Gain: 7dBi

• Max power: 100W

• Dimension: 140xL587mm

• Weight: 3.4kg



# **Jammer Antenna**

Our series manpack antenna provides wideband communications from UHF, cellular (CDMA, TDMA, GSM, HGSM, etc.), satellite, and computer networks (WLAN, Wi-Fi, Bluetooth). The dipole design of this series of antennas ensures that they operate efficiently without the use of a ground plane. These rugged and compact manpack antennas keep units within command range and mission ready.

Wideband and narrow band antennas are a critical component of today's demanding RF STstems used in tactical communication, electronic countermeasure, and jamming applications. Jammer antennas offer a wide range of lightweight, rugged manpack and man-portable wide band and narrow band antennas.

#### **ST-0406M02AS-NM**

• Frequency: 400 - 600MHz

• Gain: 2dBi

• Max power: 250W

• Dimension: 26xL566mm

• Weight: 0.6kg

#### ST-08M1G02S-NM

• Frequency: **800-1000MHz** 

• Gain: 2dBi

• Max power: 150W

• Dimension: 26xL375mm

• Weight: 0.45kg

### ST-1214G05AS-NM

ST-0608M02AS-NM

• Gain: 2dBi

• Weight: 0.5kg

• Frequency: **1.2-1.4GHz** 

• Frequency: **600 - 800MHz** 

• Dimension: 26xL462mm

• Gain: 2dBi

• Max power: 120W

• Max power: 150W

• Dimension: 26xL375mm

• Weight: 0.5kg

#### ST-1416G05AS-NM

• Frequency: **1.4-1.6GHz** 

• Gain: 5dBi

• Max power: 120W

• Dimension: 26xL485mm

• Weight: 0.5kg

#### ST-1618G05AS-NM

• Frequency: 1.6-1.8GHz

• Gain: 5dBi

• Max power: 120W

• Dimension: 26xL406mm

• Weight: 0.5kg

# **Handheld Manpack**

#### ST-1820G05AS-NM

• Frequency: 1.8 - 2.0GHz

• Gain: 5dBi

• Max power: 120W

• Dimension: 26xL325mm

• Weight: 0.5kg

#### ST-2628G05-NM

• Frequency: 2.6 - 2.8GHz

• Gain: 5dBi

Max power: 100W

• Dimension: 26xL326mm

• Weight: 0.41kg

#### ST-2022G05AS-NM

• Frequency: 2.0 - 2.2GHz

• Gain: 5dBi

• Max power: 100W

• Dimension: 26xL356mm

• Weight: 0.43kg

#### ST-2830G05A-NM

• Frequency: **2.8** - **3.0GHz** 

• Gain: 5dBi

Max power: 75W

• Dimension: 26xL301mm

• Weight: 0.4kg

#### ST-2224G05AS-NM

• Frequency: 2.2 - 2.4GHz

• Gain: 5dBi

• Max power: 100W

• Dimension: 26xL356mm

• Weight: 0.43kg

#### ST-2426G05AS-NM

• Frequency: **2.4** - **2.6GHz** 

• Gain: 5dBi

Max power: 100W

Dimension: 26xL346mm

• Weight: 0.41kg

#### ST-3032G05A-NM

• Frequency: 3.0- 3.2GHz

• Gain: 5dBi

• Max power: 70W

• Dimension: 26xL356mm

• Weight: 0.4kg

#### ST-3234G05A-NM

• Frequency: **3.2** - **3.4GHz** 

• Gain: 5dBi

• Max power: 70W

• Dimension: 26xL286mm

• Weight: 0.4kg

#### ST-3436G05AS-NM

• Frequency: **3.4** - **3.6GHz** 

• Gain: 5dBi

• Max power: 70W

• Dimension: 26xL286mm

• Weight: 0.4kg

#### ST-3840G05AS-NM

• Frequency: **3.8** - **4.0GHz** 

• Gain: 5dBi

• Max power: 120W

• Dimension: 26xL375mm

• Weight: 0.5kg

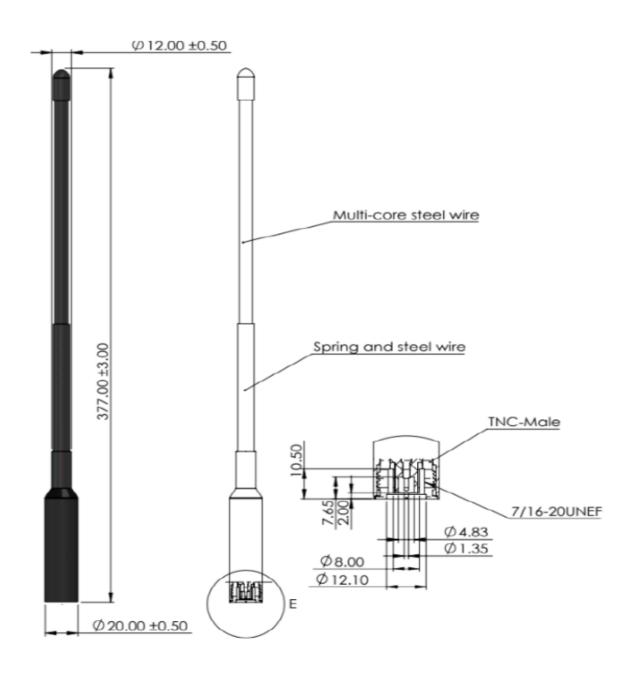
# **Military Antenna**

### 30MHz to 88MHz 38cm Handheld Whip Antenna

### ST-3088MB1-TM

Frequency: 30 - 88MHzLength: 377±30mmWeight: 0.130kg

• Connector: TNC-Male



# **Handheld Manpack**

### 30MHz to 88MHz Whip Antenna (TNC Male)

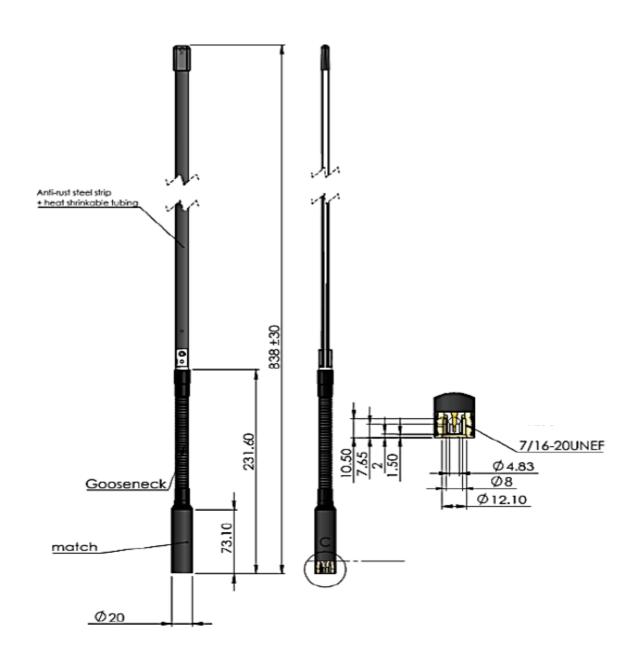
### ST-30120HB-TM

• Frequency: 30 - 120MHz

• Length: 838±30mm

• Weight: 0.130kg

• Connector: TNC-Male



# **Military Antenna**

### 30MHz to 88MHz Whip Antenna (TNC Male/ BNC Male)

### ST-3088MB2-TM

• Frequency: 30 – 120MHz

• VSWR:>3.5

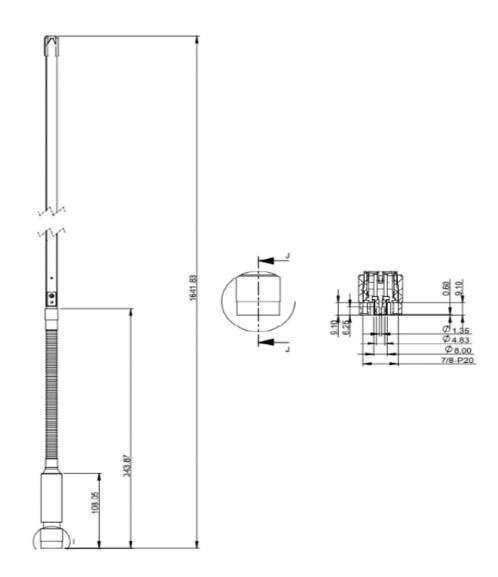
• Length: 1641mm

• Weight: 700g

Connector: TNC-Male /BNC-Male

• Standard test: MIL-810

• 7/8-20 installation screw



# **Handheld Manpack**

30MHz to 88MHz 2.5m Military Handheld & Manpack Antenna (BNC/ TNC Male)

### ST-3088MA3-TM

• Frequency: 30 – 88MHz

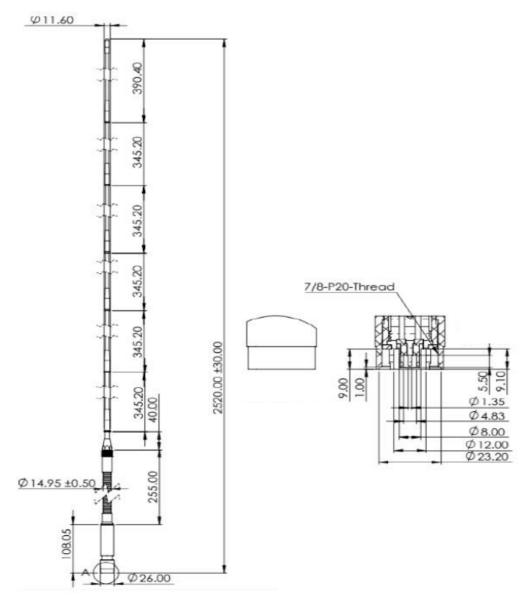
• VSWR:>3.5

• Length: 2520±30mm

• Weight: 860g

Connector: TNC-Male/BNC-Male

• Standard test: MIL-810



# **Military Antenna**

30MHz to 108MHz 1.6M Pro Military Wideband Whip Antenna, TNC Male Connector

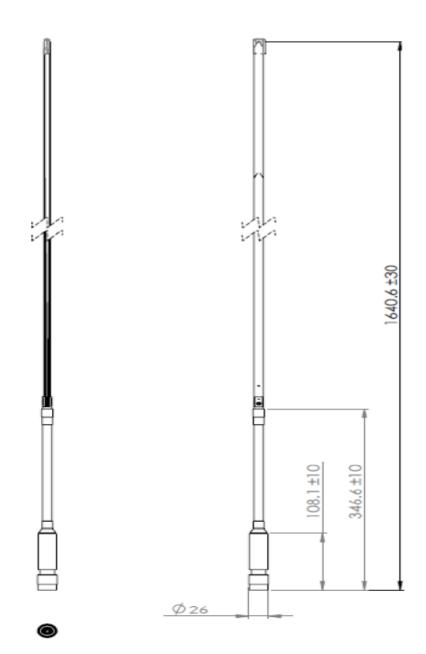
### ST-3088MA2-TM

• Frequency: 30 - 108 MHz

• Length: 1640±30mm

• Weight: 0.6kg

• Connector: TNC male



# Handheld manpack

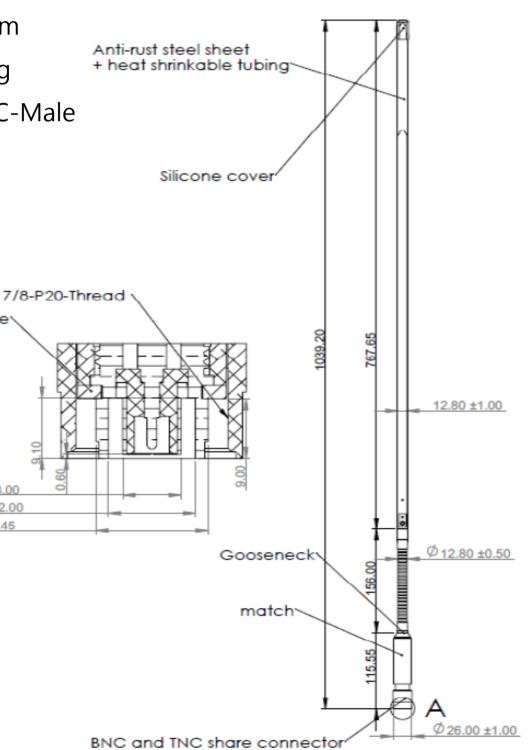
### 30MHz to 120MHz 1M Military Handheld & Manpack Antenna

### ST-3088MA5-TM

• Frequency: 30 - 120mhz

Silicone

Length: 1039mm
Weight: 0.470kg
Connector: TNC-Male



# **Military Antenna**

### 30MHz to 120MHz 1645cm Whip Antenna (BNC Male)13/16-20 installation screw

### ST-30120MA6-BM

• Frequency: 30 – 120Mhz

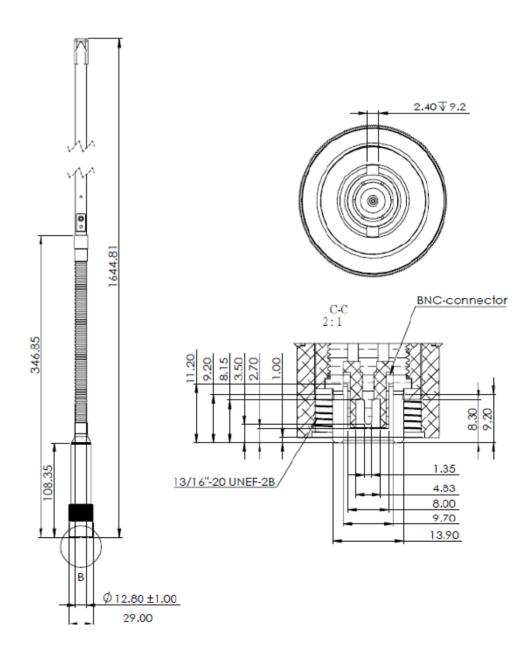
• VSWR:>3.5

• Length:1644.8mm

• Weight: 0.7kg

• Connector: BNC-Male

• Standard test: MIL-810



# Handheld manpack

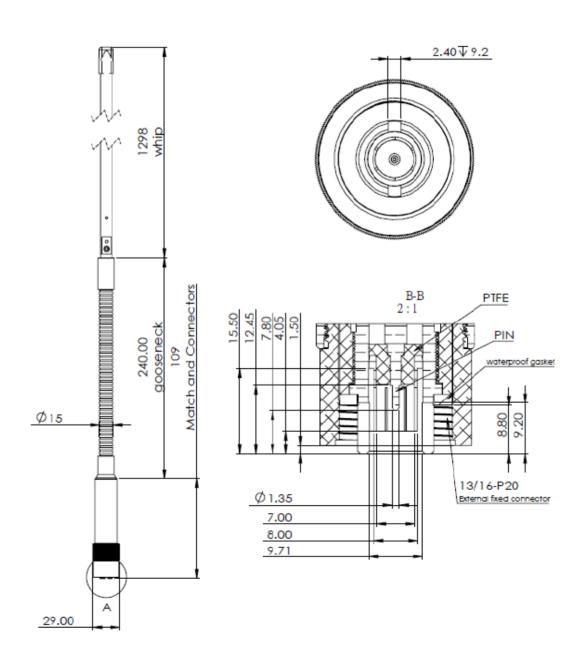
30MHz to 120MHz Military Handheld & Manpack (13/16 P20 and BNC Male) type: C6 Whip Antenna

### ST-30120MC6-BM

• Frequency: 30 – 120MHz

Length: 1298mmWeight: 0.722kg

Connector: BNC-Male
Standard test: MIL-810



# Handheld manpack

30MHz to 520MHz Military Handheld & Manpack Whip Antenna, N-Male Connector Type: A

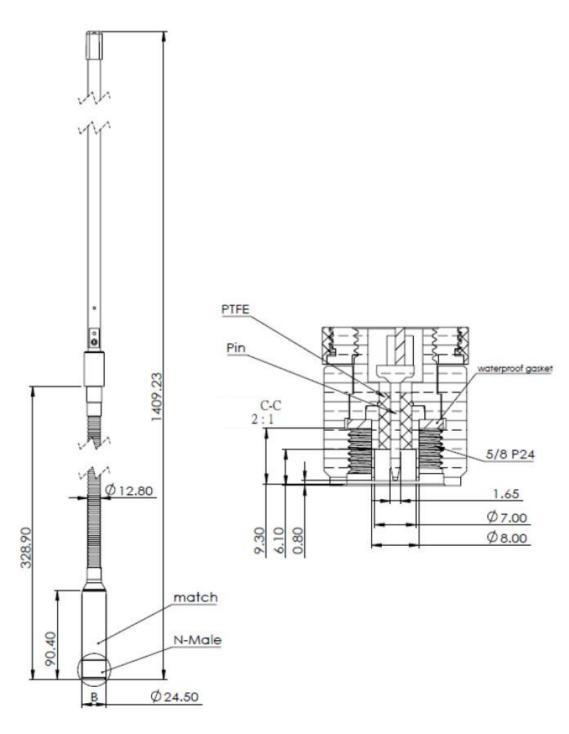
#### **ST-30512MA-NM**

• Frequency: 30 – 520 MHz

Size: 1409mmWeight: 0.55 kg

• Connector: N-Male

Standard Test : MIL-810



# Military Antenna

#### ST-240A-AA

240mm M8 black gooseneck Snake tube (15mm)

> • Thread: M8\*1.25 • Weight: 190g

#### ST-300-AA

300mm M8 black gooseneck Snake tube (12.8mm)

> • Thread: M8\*1.25 • Weight: 250g

#### ST-210-AI

205mm 5/16-24 Black Gooseneck Snake tube (11.8mm)

• Thread: 5/16-24UNEF

• Weight: 120g

#### ST-205-AA

205mm M6 black gooseneck Snake tube (11.8mm)

> • Thread: M8\*1.25 • Weight: 120g

#### ST-180-AA

Snake tube (12.8mm)

• Thread: M8\*1.25 • Weight: 160g

#### ST-305-AA

178mm M8 black gooseneck Antenna Snake tube (15mm)

> Thread: M8\*1.25 • Weight: 270g

#### **ST-240A-AA**

240mm M8 black gooseneck Snake tube (15mm)

> • Thread: M8\*1.25 • Weight: 190g

#### ST-240-AA

Antenna gooseneck 240mm M8 black Snake tube (12.8mm)

> Thread: M8\*1.25 • Weight: 190g

#### ST-200A-AA

Antenna Gooseneck 170mm M8 Black Snake tube (14.7mm)

> Thread: M8\*1.25 • Weight: 200g

#### ST-178-AA

Antenna Gooseneck 180mm M8 black Antenna Gooseneck 170mm M12 black Snake Tube (15mm)

> • Thread: M12\*1.25 Weight: 200g

# Goose neck

#### ST-165-AA

Antenna Gooseneck 170mm M8 Black Snake tube (11.8mm)

Thread: M8\*1.25

• Weight: 130g

#### **ST-164-AA**

Antenna Gooseneck 164mm M8 black Snake tube (12.8mm)

Thread: M8\*1.25

Weight: 130g

#### ST-160-AA

Antenna Gooseneck 158mm M8 black Snake tube (12.8mm)

Thread: M8\*1.25

Weight: 150g

#### **ST-C160-TN**

TNC-Male to Male for RG316D Coaxial adapter 170mm Gooseneck (12.8mm)

Thread: TNC Male\*2

Weight: 150g



**Gooseneck antennas** from FT-RF are perfect for dismounted applications that require a ruggedized, high-performance antenna with a flexible base. The antenna's orientation can be simply modified to maximize link performance. It is built to military specifications.

# **Others Antenna**

Military Dish Antenna	
Military GPS	
Military Horn Antenna	
High Power Panel Antenna	
Others	Please contact us for details.











WZ-47, SAINI CHOWK, budella village ,Vikaspuri, New Delhi, Delhi 110018

# HORN ANTENNA

### **EMC EMI ANTENNA**

- Double Ridged Horn Antenna
- Quad-Ridged Horn Antenna
- Log Periodic Antenna
- Precise Sleeve Dipole Antenna





# Double-Ridged

HORN ANTENNA

# **Horn Antenna**

#### **Double Ridged Horn Antenna applications:**

- Antenna measurement
- Communication Systems
- Satellite tracking Systems
- Radar Detection System
- Surveillance System
- Electromagnetic Compatibility

#### ST-02M03G01-NF

- Frequency: 200MHz to 3GHz
- Gain: 3dbi to 12dBi
- Dimension: 986x960x720mm
- N.W.: 15kg
- Connector: N-Female/ 7/16-Female



#### **ST-04M08GJ1-NF** (Outdoor Jamming Horn Antenna)

- Frequency: 400MHz to 8GHz
- Gain: 1dbi to 20dBi
- Dimension: 510x410x660mm
- N.W.: 11.34kgConnector: N-Female



#### **ST-03M08GT1-NF**

- Frequency: 300MHz to 8GHz
- Gain: -10dbi to 16dBi
- Dimension: 495x458x458mm
- N.W.: 8.8kg
- Connector: N-Female



#### ST-03M06GT2-NF

- Frequency: 300MHz to 6GHz
- Gain: -6dbi to 20dBi
- Dimension: 756x600x393mm
- N.W.: 9kg
- Connector: N-Female



#### ST-06M08G-NF

- Frequency: 600MHz to 8GHz
- Gain: 4dbi to 14dBi
- Dimension: 344x319x196 mm
- N.W.: 2.9kg
- Connector: N-Female



# **Double Ridged**

#### **ST-06M17G-NF**

• Frequency: 600MHz to 17GHz

• Gain: -5dbi to 17dBi

• Dimension: 350x290x190mm

• N.W: 1.4kg

• Connector: N-Female



#### ST-07M08GA2-NF

• Frequency: 700MHz to 8GHz

• Gain: 6dbi to 17dBi

• Dimension: 661x430x445mm

• N.W.: 8.1kg

• Connector: N-Female



#### **ST-07M08G-NF**

• Frequency: 700MHz to 8GHz

• Gain: 4dbi to 17dBi

• Dimension: 180x334x288mm

• N.W.: 1.35 KG

• Connector: N-Female



#### **ST-07M18G-NF**

• Frequency: 700 MHz to 18 GHz

• Gain: 3dbi to 18dBi

• Dimension: 187x242x290mm

• N.W.: 1.83 KG

• Connector: N-Female



#### **ST-08M18G-NF**

• Frequency: 8 GHz to 18GHz

• Gain: 3dbi-18dBi

• Dimension: 203x246x147mm

• N.W.: 1.3 kg

• Connector: N-Female



#### ST-08M18G-L-NF

• Frequency: 800MHz to 18GHz

• Gain: 3dbi to 16dBi

• Dimension: 142x247x204mm

• N.W.: 1.2 kg

• Connector: N-Female

# **Horn Antenna**

#### ST-0218G-NF

Frequency: 2GHz to 18GHzGain: 5dbi to 17dBi

• Dimension: 142x120x83mm

N.W.: 0.5 KGConnector: Female



#### **ST-0540GB-KF**

• Frequency: 5GHz to 40GHz

• Gain: 1dBi to 15dBi

• Dimension: 104x55x43mm

• N.W.: 0.92kg

• Connector: K-Female



#### ST-1040GA1-KF

• Frequency: 10GHz to 40GHz

• Gain: 7dBi to 17dBi

• Dimension: 77x55x38mm

• N.W.: 0.9kg

• Connector: K-Female



#### ST-1840GA1-KF

• Frequency: 18GHz to 40GHz

• Gain: 13dbi to 16dBi

• Dimension: 74x55x38mm

• N.W.: 90g

• Connector: K-Female



#### ST-1840GA2-KF

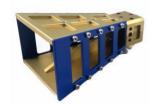
• Frequency: 18GHz to 40GHz

• Gain: 15dbi to 18dBi

• Dimension: 128x68x44mm

• N.W.: 119g

• Connector: K-Female



#### ST-1840GA3-KF

• Frequency: 18-40GHz

• Gain: 16dbi to 19dBi

• Dimension: 153x81x51mm

• N.W.: 157g

• Connector: K-Female



## **Horn Antenna**

### ST-03M08GT1-NF

• Frequency: 300MHz to 8GHz

• Gain: -10dbi to 16 dBi

Dimension: 495x458x458mm

• N.W.: 8.8 KG

• Connector: N-Female



### ST-03M06GT2-NF

• Frequency: 300MHz to 6GHz

• Gain: -6dbi to 20 dBi

• Dimension: 756x600x393mm

• N.W.: 9 KG

• Connector: N-Female



### **ST-08M08G-NF**

• Frequency: 800MHz to 8GHz

• Gain: 3dbi to 17dBi

• Dimension: 202x245x143mm

• N.W.: 0.8 KG

• Connector: N-Female

### ST-07M13G-NF

• Frequency: 700MHz to 13GHz

• Gain: 3dbi to 16dBi

• Dimension: 192x345x288mm

• N.W.: 1.67 KG

• Connector: N-Female

### **ST-04M07G-NF**

• Frequency: 400 MHz to 7 GHz • Dimension: 619x414x644mm

• Weight: 6390g

• Connector: N-Female

### ST-04M06GT3-NF

• Frequency: 400 MHz to 7 GHz

• Dimension: 318x414x644

• Weight: 4047g

• Connector: N-Female

### ST-03M08GA3-NF

• Frequency: 300 MHz to 8 GHz • Dimension: 437x559x998mm

• Weight: 8752g

• Connector: N-Female



### **Antenna Tripod - LM-301**

• Height: 84.1cm-140.5cm

• Maximum Load: 22.5kg

• Tripod weight: 8kg



## **Open boundary**

## Double-Ridged Horn Antenna

### **ST-07M08G-NF**

• Frequency: 700MHz - 8GHz

• Gain: 3-14dBi

• Polarization: Vertical or Horizontal

Connector: N-FemaleMax power: 500W



### **ST-07M18G-NF**

• Frequency: 700MHz - 18GHz

• Gain: 3-17dBi

• Polarization: Vertical or Horizontal

Connector: N-FemaleMax power: 500W



### **ST-08M18G-NF**

• Frequency: 800MHz – 18GHz

• Gain: 3-14dBi

• Polarization: Vertical or Horizontal

Connector: N-FemaleMax power: 500W



### **ST-08M08G-NF**

• Frequency: 800MHz -8GHz

• Gain: 3-15dBi

• Polarization: Vertical or Horizontal

Connector: N-FemaleMax power: 500W c



## **Quad-ridged horn**

### ST-03M06G01-NF

Frequency: 300MHz to 6GHzDimension: 439x439x476mm

• N.W: 8.4kg

• Connector: N-femalex2

### **ST-07M10G-NF**

Frequency: 700MHz-10GHzDimension: 267x269x402mm

• N.W: 4kg

• Connector: N-femalex2

### ST-300M10G01-SF

Frequency: 300MHz to 10GHzDimension: 368x359x577mm

• N.W.: 5.6kg

• Connector: SMA-Femalex2

### ST-03M08G1-SF

Frequency: 300MHz to 8.5GHzDimension: 439x439x425mm

• N.W.: 6.8kg

• Connector: SMA-Female

### **ST-01G08G-NF**

• Frequency: 1GHz-8GHz

• Dimension: 247x247x 365mm

• N.W.: 2.8kg

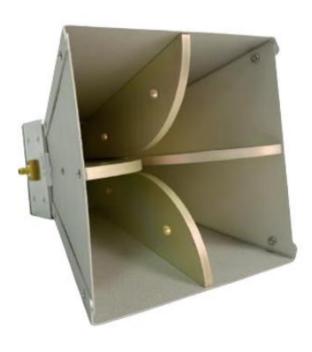
Connector: N-femalex2

### ST-0218G01-SF

Frequency: 2GHz to 8GHzDimension: 173x143x143mm

• N.W.: 1.08 KG

Connector: SMA-Femalex2



# Open Boundary Quad-Ridged



## **Horn Antenna**

### ST-0218G-SF

• Frequency: 2GHz to 18GHz

• Gain: 2dbi to 18dBi

• Dimension: 157x157x180mm

• N.W.: 0.88kg

• Connector: SMA-Femalex2



### ST-03M06G08-NF

• Frequency: 300MHz to 6GHz

• Gain: 3dbi to 14dBi

• Dimension: 510x507x507mm

• N.W.: 4.2kg

Connector: N-Femalex2



### ST-07M06G08-NF

• Frequency: 700MHz to 6GHz

• Gain: 5dbi to 12dBi

• Dimension: 346x346x343mm

• N.W.: 1.95kg

• Connector: N-Femalex2

### **ST-07M10GA1-SF**

• Frequency: 700MHz to 10GHz

• Gain: 0dBi to 12dBi

• Dimension: 241x226x241

• N.W.: 1.3kg

Connector: SMA-Femalex2



### ST-07M06G06-NF

• Frequency: 700MHz to 6GHz

• Gain: 4dbi to 14dBi

• Dimension: 345x366x345mm

• N.W.: 4.9kg

• Connector: N-Femalex2



### ST-03M06G01-NF

• Frequency: 300MHz to 6GHz

• Gain: 1dbi to 14dBi

• Dimension: 540x513x513mm

• N.W.: 8.6kg

• Connector: N-Female



### HST-07M06G06-NF

• Frequency: 700MHz to 6GHz

• Gain: 4dbi to 14dBi

• Dimension: 345x366x345mm

• N.W.: 4.9kg

• Connector: N-Femalex2



### ST-07M10GT1-SF

• Frequency: 700MHz to 10GHz

• Gain: -8dbi to 14dBi

• Dimension: 241x241x281mm

• N.W.: 1.36kg

Connector: N-Femalex2



### ST-07M08G01-SF

• Frequency: 700MHz to 8GHz

• Gain: 3dbi to 15dBi

• Dimension: 405x405X375mm

• N.W.: 4.95kg

• Connector: N-Femalex2



### ST-07M18GA1-SF

• Frequency: 700MHz to 18GHz

• Gain: 1dbi to 14dBi

• Dimension: 242x242x233mm

• N.W.: 1.42kg

Connector: N-Femalex2



## **Sleeve Dipole**

Precision Sleeve Dipole Antenna is omnidirectional antennas with a low VSWR and an electric dipole pattern that resembles a half-wave resonant dipole. The antenna can be end-fed thanks to the sleeve dipole design, which eliminates cable and feed point interactions that can degrade antenna performance and reduce cable interaction.

The Sleeve dipole antennas have a nominal 50-ohm impedance, a one-watt maximum continuous transmit power, and SMA Female connector (N-Female Connector optional) please contact us for details info@STnergytpl.com

Gain, VSWR, max. ripple and measurement uncertainty values are provided with each calibration.

Frequency (MHz)	Model
400 – 550	ST-450-SF
400 – 600	ST-500-SF
600 – 800	ST-700-SF
700 – 900	ST-800-SF-V2
820 – 980	ST-900-SF-V2
1075 – 1375	ST-900-SF-V2
1400 – 1700	ST-1550-SF
1550 – 1850	ST-1700-SF
1650 – 1950	ST-1800-SF
1895 – 2195	ST-2045-SF
1995 – 2295	SL-2145-SF
2300 – 2600	ST-2450-SF
2450 – 2750	ST-2600-SF
3000 – 3300	ST-3200-SF
3450 – 3800	ST-3500-SF
3500 – 3700	ST-3600-SF
3800 – 42000	ST-4000-SF
4900 – 5400	ST-5300-SF
5400 – 5600	ST-5500-SF
5400 – 5900	ST-5800-SF



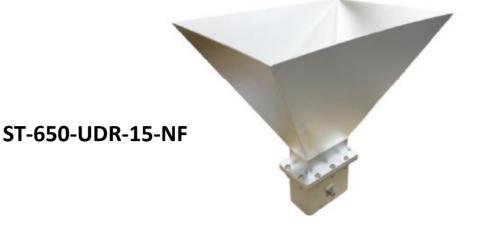
## STANDARD GAIN HORN ANTENNA



ST-90-UBR-20



ST-510-UDR-NF



## Standard Gain Horn Antenna without Adapter (Waveguide Input Antenna)

FT-RF Standard gain horn antenna product series includes waveguide sizes WR28, WR42, WR51, WR62, WR75, WR90, WR112, WR137, WR159, WR187, WR229, WR284 and WR340, WR430, WR510, WR650, WR770, WR975, WR1150, WR1500, WR1800, WR2100, WR2300, with broadband waveguide horn antennas have frequency capabilities ranging from 320Mhz to 40 GHz depending on type and style. with the gain of 10dBi, 15dBi, 20dBi and 25dBi.

Waveguide to Coaxial Adapter

## **Standard Gain Horn Antenna**

Waveguide	Frequency range	Waveguide	Frequency Range
WR28	26.5 – 40 GHz	WR284	2.6 – 3.95 GHz
WR43	22 – 33 GHz	WR340	2.2 – 3.3 GHz
WR42	18 – 26.5 GHz	WR430	1.7 – 2.6 GHz
WR51	15 – 22 GHz	WR510	1.45 – 2.2 GHz
WR62	12.4 – 18 GHz	WR650	1.14 – 1.73 GHz
WR75	10 – 15 GHz	WR770	960 -1450 MHz
WR90	8.2 – 12.4 GHz	WR975	750 – 1120 MHz
WR112	7.05 – 10 GHz	WR1150	640 – 960 MHz
WR137	5.825 – 8.2 GHz	WR1500	490 – 750 MHz
WR187	3.9 – 5.85 GHz	WR1800	410 – 620 MHz
WR229	3.3 – 4.9 GHz	WR2100	350 – 530 MHz

Standard gain horn antennas are used as calibration devices that measure the gain of other antennas.

These antennas are made up of a combination of a Waveguide to Coax Adapter and Standard Gain Horn with Waveguide Input. It is a kind of simple combination but with great care and attention to create an antenna with accurate and suitable specs.

### **Standard Gain Horn Antenna Applications:**

- Antenna measurement
- Radar Detection STstem
- Wireless Communication
- Spectrum Monitoring
- Electromagnetic interference Testing (EMI test)











WZ-47, SAINI CHOWK, budella village ,Vikaspuri, New Delhi, Delhi 110018

# LORA ANTENNA

868 MHz, 915 MHz & 923 MHz

## **Indoor Antenna**

### ST-8994M03-RSMB

- Freq: 890-940MHz
- Radiation: Omni Directional
- Gain: 3dBi
- Connector: RP-SMA-MaleDimension: 198x12.5mm
- Weight: 30g



### ST-9296M03-SM

- Freq: 920-960MHz
- Radiation: Omni Directional
- · Gain: 3dBi
- Connector: SMA-MaleDimension: 237x12.5mm
- Weight: 46g



### ST-1820M05-SM

- Freq: 1800MHz-2000MHz
- Radiation: Omni Directional
- Gain: 5dBi
- Connector: SMA-MaleDimension: 237x12.5mm
- Weight: 46g



### ST-2122M05-SM

- Freq: 2100-2200MHz
- Radiation: Omni Directional
- Gain: 5dBi
- Connector: SMA-MaleDimension: 198x12.5mm
- Weight: 30g

### ST-242502-RSMB

- Freq: 2400-2500MHz
- Radiation: Omni Directional
- Gain: 2dBi
- Connector: RP-SMA-MaleDimension: 108x12.5mm
- Weight: 15g



### ST-242503-RSMB

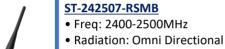
- Freq: 2400-2500MHz
- Radiation: Omni Directional
- Gain: 3dBi
- Connector: RP-SMA-MaleDimension: 137x12.5mm
- Weight: 25g



- Freq: 2400-2500MHz
- Radiation: Omni Directional
- Gain: 5dBi
- Connector: RP-SMA-MaleDimension: 192x12.5mm
- Weight: 30g

### ST-242505-NM

- Freq: 2400-2500MHz
- Radiation: Omni Directional
- Gain: 5dBi
- Connector: N-MaleDimension: 190x44mm
- Weight: 30g



- Connector: RP-SMA-MaleDimension: 332x12.5mm
- Weight: 50g

• Gain: 7dBi

- ST-2527M06-SM
- Freq: 2500-2700MHz
- Radiation: Omni Directional
- Gain: 6dBi
- Connector: SMA-MaleDimension: 237x12.5mm
- Weight: 46g

### ST-242503-NF

- Freq: 2400-2500MHz
- Radiation: Omni Directional
- Gain: 6dBi
- Connector: N-FemaleDimension: 170x140mm
- Weight: 210g



### ST-245805-RSMB

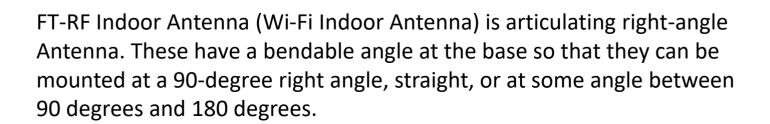
- Freq: 2400/5800MHz
- Radiation: Omni Directional
- Gain: 5dBi
- Connector: RP-SMA-MalDimension: 163x22mm
- Weight: 30g

### ST-0821G02-RASM

- Freq: 824-960MHz / 1710-2170MHz
- Radiation: Omni Directional
- Gain: 6dBi
- Connector: RA-SMA- Male
- Dimension: 57.5x16.6mm
- Weight: 30g X

### Application:

- IoT wireless & M2M: Bluetooth, ZigBee, and ISM. Since it is vertically polarized, it is compatible with many machine-to-machine communication applications, remote monitoring, and telemetry applications.
- 2.4GHz Wi-Fi applications: 802.11N, 802.11G, 802.11B
- Compatible with Bluetooth devices, Wireless Access Points & other wireless devices that have RP-SMA antenna jacks
- Bluetooth antenna



### **LORA Antenna**

**868 MHz LoRa antenna series are** Omnidirectional outdoor antenna, which operates from 860 to 870MHz band and a center frequency of 868MHz - it's also known as EU868 (or EU market).

- The UV-resistant fiberglass shell enables all-weather operation.
- Any type and length of cable can be terminated with an N-Type connector.
- Helium miner, Helium hotspot, RFID, WLAN, ISM BAND, 868MHz Application

The OA-868M series, often known as EU868 (for the European market), is a license-free ISM band with a core frequency of 868MHz. The omnidirectional antenna employs an advanced collinear dipole design, which means it radiates uniformly in the azimuth with a high gain across long distances, reducing the number of cells or nodes required in a network.

Model	Gain(dbi)	Dimension(mm)	Weight (g)	Connector
ST-868M03-NF	3	320x70x50	330	N-Female
ST-868M04-NF	4	670x70x55	513	N-Female
ST-868M05-NF	5	820X70X55	654	N-Female
ST-865M05C-NF	5	745x70x55	392	N-Female
ST-868M06-NF	6	1200x70x55	586	N-Female
ST-868M06C-NF	6	915±30x70x55	481	N-Female
ST-868MO7-NF	7	1300x70x55	780	N-Female
ST-868M07C-NF	7	1235x70x55	600	N-Female
ST-868M08-NF	8	1475x70x50	1070	N-Female
ST-868M09-NF	9	1614 <u>+</u> 30x70x50	920	N-Female
ST-868M10-NF	10	2240x70x50	994	N-Female
ST-868M12-NF	12	2240x70x50	994	N-Female
ST-868M03-NM	3	295x20x20	180	N-Male



## **LORA Antenna**

Model	Gain(dbi)	Dimension(mm)	Weight (g)	Connector
ST-915M03-NF	3	318x70x50	274	N-Female
ST-915M04-NF	4	745x70x50	572	N-Female
ST-915M05-NF	5	800x70x50*	680	N-Female
ST-915M05C-NF	5	800x70x50*	443	N-Female
ST-915M06-NF	6	1100x70x50	596	N-Female
ST-915M06C-NF	6	1100x70x50	523	N-Female
ST-915MO7-NF	7	1095x70x50*	572	N-Female
ST-915M07C-NF	7	1235x70x50*	572	N-Female
ST-915M08-NF	8	1474x70x55	858	N-Female
ST-915M09-NF	9	1474x70x55	900	N-Female
ST-915M12-NF	12	2235x70x50	1500	N-Female
ST-923M06-NF	6	1500x70x55	700	N-Female
ST-923M03-NF	3	318x70x50	250	N-Female

## LORA Antenna 915 & 923 MHZ

- 915MHz Lora antenna work at frequencies ranging from 902MHz to 928MHz (for 915MHz series). And 917 MHz to 928 MHz with 923 MHz of center frequency.
- The dipole antenna is one of the most common and simplest antenna designs. ISM, WLAN, RFID, Sig Fox, Lora, and LPWA networks are among the applications, as is helium hotspot one of the projects that have expanded quickly in recent years.
- The antenna is constructed in a straight line and is relatively light in weight, making it suitable for a variety of situations, including the most severe, thanks to its UV-resistant shell
- \*The actual size could be slightly different
- The UV-resistant fiberglass shell enables all-weather operation.
- For lightning protection, it is made of copper elements and coupled to the DC ground potential.
- Any type and length of cable can be terminated with a female N-Type connector.

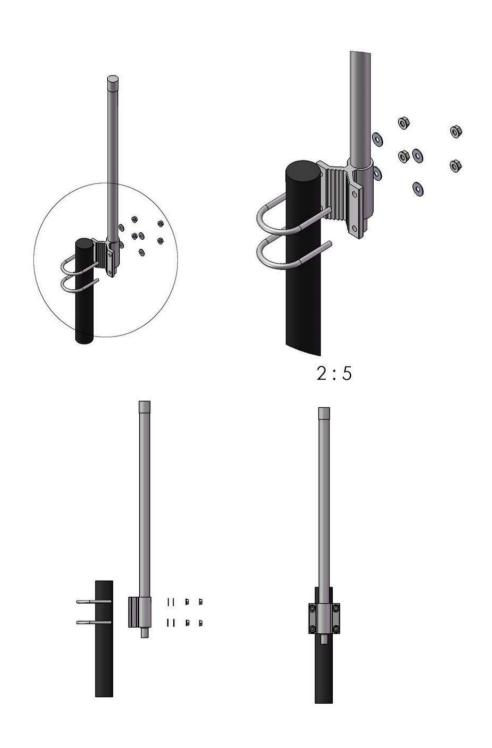
## **Outdoor Antenna**

Frequency range	Application
118MHz - 174MHz	VFH Very high frequency – FM Radio, TV broadcasts, and aircraft
170MHz - 225MHz	communications, Military/Defense
310MHz - 436MHz	433MHz, Smart City & IoT, UHF Ultra high frequency – TV broadcasts, microwave ovens, mobile phones, wireless LAN, Bluetooth, GPS, and two-way Radios
430MHz - 512MHz	<ul> <li>433MHz antenna/Sigfox/LoRa/LPWA/RFID/ISM for all types of equipment that require little power.</li> <li>Suitable for IoT solutions that use 433 MHz wireless communications</li> <li>UHF Antenna Outdoor, cellular IoT (LTE-M, NB-IoT) Ground communication stations</li> <li>Temporary installations for short-term communication networks, general aviation air to ground radio STstems, Land Mobile Radio (LRM), and industrial radio services.</li> </ul>
696MHz – 830MHz	LTE directional antenna, LTE base station signals, 700 MHz Network
824MHz – 896MHz	Low Power Networks (LPWAN) as Sigfox and LoraWan are using for communicating (EU868)
890MHz – 960MHz	RFID, ETC, ISM Band, LoRa 915MHz, 900MHz, 4G, 2G, LTE, Surveillance, Security
1030MHz – 1600MHz	Surveillance, Security, 4G LTE
1710MHz – 2170MHz	4G LTE
2200MHz – 2500MHz	WiMAX, LTE, 2.3GHz, Wireless LAN, IEEE 802.11X
2400MHz – 2500MHz	WIFI, 2.4GHz, MIMO, IEEE 802.11b/g/n/p, Wireless LAN, WLAN
2500MHz – 2700MHz	LTE 2600MHz
3300MHz – 4200MHz	WiMAX, 5G, 6G
4400MHz – 4900MHz	SHF Super high frequency – Radars, Mobile Phones, and Commercial Wireless LAN
4900MHz – 6200M	WiMAX, Wi-Fi, IEEE802.11A, Wireless LAN, 5.8GHz UNII, and ISM Applications, 5G, Unlicensed European 5.4 GHz Band

## **Outdoor Antenna Installation**

Recently, the term "Lora antenna" has become popular. However, we understand that not everyone knows how to properly install an antenna; the most essential thing to remember is that there should be no metal behind the antenna, as this can disrupt the antenna pattern.

Please double-check that you've installed everything correctly



### ST-PRO03-NFBNM

DC to 3GHz N-male to N-Female Bulkhead Arrester



### ST-0NF0NF06-NI

DC to 6GHz N-Female to N-Female Bulkhead Arrester



### **ST-PRO06-RTNFRTNM**

DC to 6GHz RP TNC Male to RP TNC Bulkhead Female Arrester



### ST-PRO06-NFBTN

DC to 6GHz N-Female Bulkhead to TNC Female Arrester



### ST-0NM0NF06-NI

DC to 6GHz N-Male to N-Female Bulkhead Arrestor



### ST-PRO06-SMFBSMF

DC to 6GHz SMA Female to SMA Bulkhead Female Arrester



## RF Arrestor & Adaptor

### ST-00NF00NF6G-BN

N-Female to N-Female Bulkhead Adapter DC-6GHz



### ST-SFFSFF-B-ST

Stainless Steel SMA-Female to SMA-Female Lock Adapter DC-10GHz



### ST-SMMSMM-B-CP

Stainless Steel SMA-Female to SMA-Female Bulkhead Adapter DC-18GHz



### ST-00NM00NM3G-BN

N-Male to N-Male Adapter DC-3GHz



### ST-SFFSFF-10L-ST

Stainless Steel SMA-Female to SMA-Female Lock Adapter DC-10GHz



## **RF Connector & Coaxial cable**

SMA Connector Model No.
SMA-JJG
SMA-JJW
SMA-JJWG
SMA-JK
SMA-JKW
SMA-JKWG
SMA-KK
SMA-KKF
SMA-KKW
SMA-KKWG
SMA-KKY
SMA-KKYG
SMA/N-JJG
SMA/N-JKG
SMA/N-KJG
SMA/N-KKG



2.4mm Connector Model No.
2.4-JJG
2.4-JJWG
2.4-JKG
2.4-JKWG
2.4-KKFG
2.4-KKG
2.4-KKWG
2.4-KKYG

2.92mm Connector Model No.
2.92-JJG
2.92-JJWG
2.92-JKG
2.92-JKWG

### **RG Coaxial Cable**

Type: RG8, RG58A/U, RG58, RG58U, RG142, RG174, RG178, RG188A/U, RG213, RG214, RG223, RG316, RG316D, RG400, CFD100

### **FT Series**

FT195, FT200, FT240, FT300, FT400

**LMR Series** 

LMR900, LMR1200















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