## sunhans Idea

# sunhans

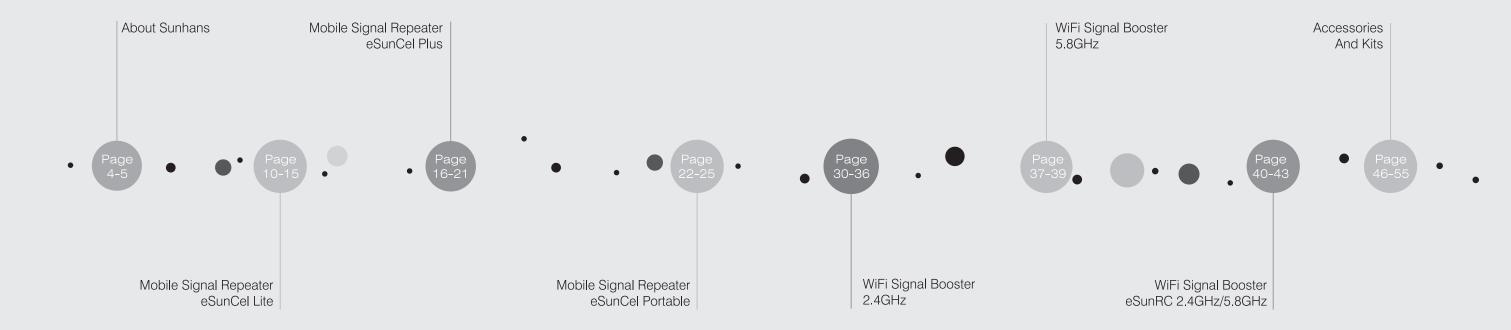
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### **About** Sunhans

\*Sunhans has products that facilitate communication to thousands of businesses and individuals\*

Sunhans was founded in 2008 with the purpose of innovating in the field of telecommunications, researching new technologies and initiatives to better global communication.

Currently, Sunhans has products that facilitate communication to thousands of businesses and individuals. We like to call ourselves \*troubleshooters\* because we specialize in solving the problems of wireless networks and mobile signal coverage. In addition, we specialize in manufacturing the latest technology in our field. For example, new wireless networking protocols.

We are always ahead of other manufacturers. Because we always are anticipating and innovating. This is one of the reasons for our customers trust.

Sunhans has a team of highly qualified people. Engineers with a long career and a good knowledge of the technology, legal advisers who make our products to meet the standards of all countries of the world. Friendly, sincere, and cheerful salespeople, expert in telecommunications. Logistics managers with big constancy in their job are responsible of making sure that everything reaches its destination on time and to supervise every minute of the shipment. Production managers who oversee the technical quality control and finish every production, from the start of the delivery to the carrier.

Until 2013, our work was focused mostly on the Chinese market, exporting to Europe and America only a 10% of the production. But this year we have shifted this percentage, to almost exclusively producing products for foreign markets.

Sunhans faces a big change this year. A change in mentality, a change in the market, a quality change, a change of brand image.

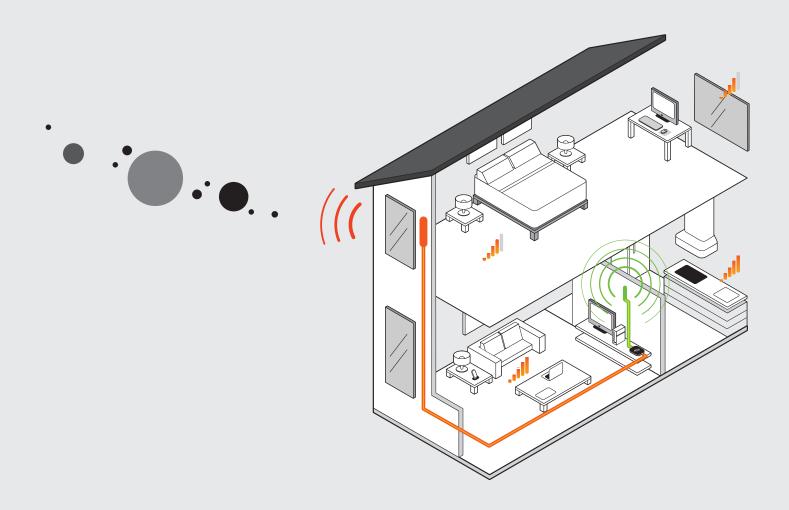
We have factory in Shenzhen (China), a Hong Kong office and logistics warehouses in Spain, Germany and Mexico. Our distribution network is as fast and effective as our production. So that in our company, nothing fails, and to assure that if something fails, it is solved with the same agility with which we act on the other aspects of our work.













## eSunCel LITE















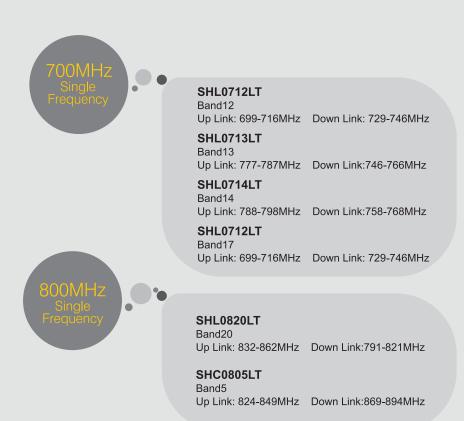
**Technical Specifications Input power: -**70 ~ **-**40dBm Max up link gain: 58dB Max down link gain: 60dB Max output power: +15dBm Impedance: 50 Ohms

Isolation: >70dB

Connector type: RP-SMA female Power supply: 5V/2A DC, 100~240V Compact design: Indoor use













#### SHEG0908LT

Band8

Up Link: 880-915MHz Down Link: 925-960MHz

#### SHD1803LT

Band3

Up Link: 1710-1785MHz Down Link: 1805-1880MHz

#### SHP1925LT

Band25

Up Link: 1850-1915MHz Down Link: 1930-1995MHz

#### SHAWS2104LT

Band4

Up Link: 1710-1755MHz Down Link: 2110-2155MHz

#### SHW2101LT

Band1

Up Link: 1920-1980MHz Down Link: 2110-2170MHz

#### SHL2607LT

Band7

Up Link: 2500-2570MHz Down Link: 2620-2690MHz











#### SHC08P19LT

Band5/Band25

Up Link: 824-849MHz Down Link: 869-894MHz Up Link: 850-1915MHz Down Link: 1930-1995MHz



Band8/Band1

Up Link: 880-915MHz Down Link: 925-960MHz Up Link: 1920-1980MHz Down Link: 2110-2170MHz

#### SHD18L26LT

Band3/Band7

Up Link: 1710-1785MHz Down Link: 1805-1880MHz Up Link: 2500-2570MHz Down Link: 2620-2690MHz







#### SHAL5001LT

Up Link: 704-716MHz BAND17 700MHz Down Link: 734-746MHz BAND13 700MHz Up Link: 777-787MHz Down Link: 746-756MHz 850MHz BAND5 Up Link: 824-749MHz Down Link: 869-894MHz 1700/2100MHz Up Link: 1710-1755MHz Down Link: 2110-2155MHz BAND4 BAND25/2 1900MHz Up Link: 1850-1915MHz Down Link: 1930-1995MHz

#### SHAL5002LT

BAND8 900MHz Up Link: 890-915MHz Down Link: 935-960MHz Up Link: 890-915MHz BAND8 900MHz Down Link: 935-960MHz BAND3 1800MHz Up Link: 1710-1785MHz Down Link: 1805-1880MHz BAND1 2100MHz Up Link: 1920-1980MHz Down Link: 2110-2170MHz Up Link: 2500-2570MHz Down Link: 2620-2690MHz BAND7 2600MHz





## eSunCel PLUS

















**Technical Specifications Input power: -**70 ~ **-**40dBm Max up link gain: 62dB Max down link gain: 65dB Max output power: +15dBm Impedance: 50 Ohms

Isolation: >70dB

Connector type: N-K female

Power supply: 5V/2A DC, 100~240V Compact design: Indoor use



## eSunCel PLUS Single Frequency



#### SHL0712PL

Band12

Up Link: 699-716MHz Down Link: 729-746MHz

#### SHL0713PL

Band13

Up Link: 777-787MHz Down Link: 746-766MHz

#### SHL0714PL

Band14

Up Link: 788-798MHz Down Link: 758-768MHz

#### SHL0717PL

Band17

Up Link: 699-716MHz Down Link: 729-746MHz



#### SHL0820LT

Band20

#### SHC0805LT

Band5

Up Link: 824-849MHz Down Link: 869-894MHz









#### SH-G900-M2

Band8

Up Link: 890-915MHz Down Link: 935-960MHz

#### SH-G935-M2

Band8

Up Link: 880-915MHz Down Link: 925-960MHz

#### SH-DA1800-M2

Band3

Up Link: 1710-1785MHz Down Link: 1805-1880MHz

#### SHP1925PL

Band25

Up Link: 1850-1915MHz Down Link: 1930-1995MHz

#### SHAWS2104PL

Band4

Up Link: 1710-1755MHz Down Link: 2110-2155MHz

#### SH-WA2100-M2

Band1

Up Link: 1920-1980MHz Down Link: 2110-2170MHz

#### SH-LT2600-M2

Band7

Up Link: 2500-2570MHz Down Link: 2620-2690MHz







## eSunCel PLUS Multi Frequency



#### SHC08P19PL Band5/Band25

Up Link: 824-849MHz Down Link: 869-894MHz Up Link: 850-1915MHz Down Link: 1930-1995MHz







#### SH-G900W2100-D2

Band8/Band1

Up Link: 890-915MHz Down Link: 935-960MHz Up Link: 1920-1980MHz Down Link: 2110-2170MHz

#### SH-G935W2100-D2

Band8/Band1

Up Link: 880-915MHz Down Link: 925-960MHz Up Link: 1920-1980MHz Down Link: 2110-2170MHz

#### SH-D18L26-D2

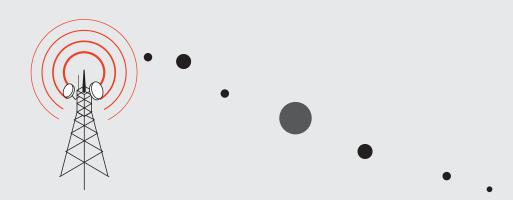
Band3/Band7

Up Link: 1710-1785MHz Down Link: 1805-1880MHz Up Link: 2500-2570MHz Down Link: 2620-2690MHz

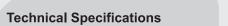
#### SH-G09D18-D2

Band/Band1

Up Link: 890-915MHz Down Link: 935-960MHz Up Link: 1710-1785MHz Down Link: 1805-1880MHz



### How it works



**Input power: -**70 ~ **-**40dBm Max Up link gain: 48dB Max Down link gain: 48dB Max output power: +15dBm Impedance: 50 Ohms

Isolation: >70dB

Connector type: RP-SMA female Power supply: 5V/2A DC, 100~240V Compact design: Indoor use



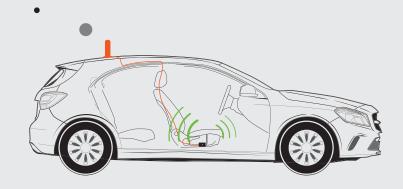














## eSunCel PORTABLE Single Frequency

eSunCel PORTABLE Multi Frequency

SHL0712LW

Band17 Up Link: 699-716MHz Down Link: 729-746MHz

SHEG0908LW

Up Link: 880-915MHz Down Link: 925-960MHz Band8



#### **SHD1803LW**

Up Link: 1710-1785MHz Down Link: 1805-1880MHz

SHP1925LW

Band25 Up Link: 1850-1915MHz Down Link: 1930-1995MHz

SHAWS2104LW

Up Link: 1710-1755MHz Down Link: 2110-2155MHz

**SHW2101LW** 

Up Link: 1920-1980MHz Down Link: 2110-2170MHz



SHC08P19LW

850MHz Up Link: 824-849MHz Down Link: 869-894MHz BAND25/2 1900MHz Up Link: 850-1915MHz Down Link: 1930-1995MHz

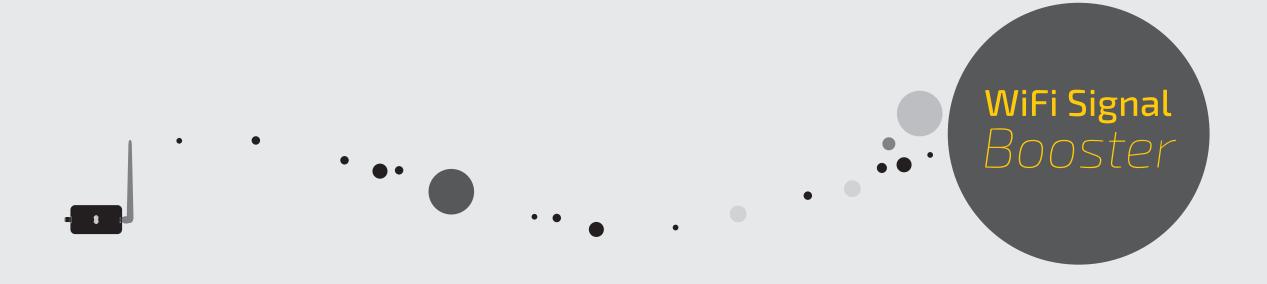


#### SHAL5001LW

BAND17 700MHz Up Link: 704-716MHz Down Link: 734-746MHz BAND13 700MHz Up Link: 777-787MHz Down Link: 746-756MHz BAND5 850MHz Up Link: 824-749MHz Down Link: 869-894MHz 1700/2100MHz Up Link: 1710-1755MHz Down Link: 2110-2155MHz BAND4 BAND25/2 1900MHz Up Link: 1850-1915MHz Down Link: 1930-1995MHz

#### SHAL5002LW

BAND8	900MHz	Up Link: 890-915MHz	Down Link: 935-960MHz
BAND8	900MHz	Up Link: 890-915MHz	Down Link: 935-960MHz
BAND3	1800MHz	Up Link: 1710-1785MHz	Down Link: 1805-1880MHz
BAND1	2100MHz	Up Link: 1920-1980MHz	Down Link: 2110-2170MHz
BAND7	2600MHz	Up Link: 2500-2570MHz	Down Link: 2620-2690MHz



















#### **Technical Specifications**

Operating range: 2400~2500MHz Channel width: 20MHz&40MHz

**Supported standards:** IEEE 802.11b/g/n **Operation mode:** Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 2000mW (33dBm)

Input power: 0 ~ 20dBm

Transmit gain: 13 ~ 16dB

Receiver gain: ≤12dB

Noise figure: ≤3.5dB typical

Frequency response: ±1dB over operating range

Power adapter: 6V/2A DC, 100~240V



#### **Technical Specifications**

Operating range: 2400~2500MHz Channel width: 20MHz&40MHz

**Supported standards:** IEEE 802.11b/g/n **Operation mode:** Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 2500mW (34dBm)

Input power: 0 ~ 20dBm

Transmit gain: 14 ~ 17dB

Receiver gain: ≤12dB

Noise figure: ≤3.5dB typical

Frequency response: ±1dB over operating range

Power adapter: 12V/2A DC, 100~240V







## 2.4GHz Frequency



#### **Technical Specifications**

Operating range: 2400~2500MHz Channel width: 20MHz&40MHz

**Supported standards:** IEEE 802.11b/g/n **Operation mode:** Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 3000mW (35dBm)

Input power: 0 ~ 20dBm Transmit gain: 15 ~ 18dB Receiver gain: ≤12dB

**Noise figure:** ≤3.5dB typical

**Frequency response:** ±1dB over operating range

Power adapter: 12V/2A DC, 100~240V















#### **Technical Specifications**

Operating range: 2400~2500MHz Channel width: 20MHz&40MHz

**Supported standards:** IEEE 802.11b/g/n **Operation mode:** Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 1000mW (30dBm)

Input power: 0 ~ 20dBm

Transmit gain: 15 ~ 18dB

Receiver gain: 11 ~ 14dB

Noise figure: ≤3.5dB typical

Frequency response: ±1dB over operating range

Power adapter: 12V/2A DC, 100~240V



## 2.4GHz Frequency











Operatingrange: 2400~2500MHz
Channel width: 20MHz&40MHz
Supported standards: IEEE 802.11b/g/n
Operationmode: Bi-directional, half-duplex, time divisionduplex

Connectortype: SMA

Output power: 4000mW (36dBm)

Inputpower: 0 ~ 20dBm Transmitgain: 16 ~ 19dB Receivergain: ≤15dB

Noise figure:  $\leq$ 3.5dB typical

Frequency response: ±1dB over operating range

Poweradapter: 6V/4A DC, 100~240V











2.4GHz 40dBm SH24Gi10W Indoor

> 2.4GHz 40dBm SH24Go10W Outdoor

#### **Technical Specifications**

Operating range: 2400~2500MHz Channel width: 20MHz&40MHz Supported standards: IEEE 802.11b/g/n Operation mode: Bi-directional, half-duplex,

time division duplex

Connector type: N-K female
Output power: 10W (40dBm)

Input power: 0 ~ 26dBm

Transmit gain: 22dB

Receiver gain: ≤20dB

Noise figure: ≤3.5dB typical

Frequency response:  $\pm 1 dB$  over operating range

Power adapter: 24V/2A DC, 100~240V



2.4GHz Frequency





#### **Technical Specifications**

Operating range: 2400~2500MHz Channel width: 20MHz&40MHz

Supported standards: IEEE 802.11b/g/n Operation mode: Bi-directional, half-duplex,

time division duplex

Connector type: N-K female Output power: 20W (43dBm) **Input power:** 0 ~ 27dBm Transmit gain: 25dB Receiver gain: ≤22dB **Noise figure:**≤3.5dB typical

Frequency response: ±1dB over operating range

Power adapter: 24V/2A DC, 100~240V

## 5.8GHz Frequency

#### **Technical Specifications**

Operating range: 5150~5850MHz Channel width: 20MHz&40MHz Supported standards: IEEE 802.11a/n

Operation mode: Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 2000mW (33dBm)

**Input power:** 0 ~ 20dBm Transmit gain: 15 ~ 18dB Receiver gain: 11 ~ 14dB **Noise figure**: ≤3.5dB typical

Frequency response: ±1dB over operating range

Power adapter: 12V/2A DC, 100~240V











## 5.8GHz Frequency



#### **Technical Specifications**

Operating range: 5150~5850MHz
Channel width: 20MHz&40MHz&80MHz
Supported standards: IEEE 802.11a/n, 2Tx2R
Operation mode: Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 1000mW (30dBm)

Input power: 0 ~ 20dBm

Transmit gain: 12 ~ 14dB

Receiver gain: 9 ~ 11dB

Noise figure: ≤3.5dB typical

Frequency response: ±1dB over operating range

Power adapter: 12V/2A DC, 100~240V

















Operating range: 5150~5850MHz Channel width: 20MHz&40MHz

Supported standards: IEEE 802.11a/n
Operation mode: Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 4000mW (36dBm)

Input power: 0 ~ 20dBm

Transmit gain: 18 ~ 20dB

Receiver gain: 11 ~ 14dB

Noise figure:≤3.5dB typical

Frequency response: ±1dB over operating range

Power adapter: 12V/2A DC, 100~240V





















2.4GHz & 5.8GHz





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#### **Technical Specifications**

Operating range: 2400~2500MHz Channel width: 20MHz&40MHz

Supported standards: IEEE 802.11b/g/n Operation mode: Bi-directional, half-duplex,

time division duplex

Connector type: SMA

Output power: 3000mW (35Bm)

**Input power:** 0 ~ 20dBm Transmit gain: 15 ~ 18dB Receiver gain: ≤12dB Noise figure: ≤3.5dB typical

Frequency response: ±1dB over operating range

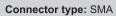
Power adapter: 5V ~ 16V/2A DC











Output power: 2000mW (33dBm)

**Technical Specifications** 

Operating range: 5150~5850MHz

Supported standards: IEEE 802.11a/n

Operation mode: Bi-directional, half-duplex,

Channel width: 20MHz&40MHz

**Input power:** 0 ~ 20dBm Transmit gain: 15 ~ 18dB Receiver gain: ≤12dB **Noise figure:** ≤3.5dB typical

**Frequency response:** ±1dB over operating range

time division duplex

Power adapter: 5V ~ 16V/2A DC

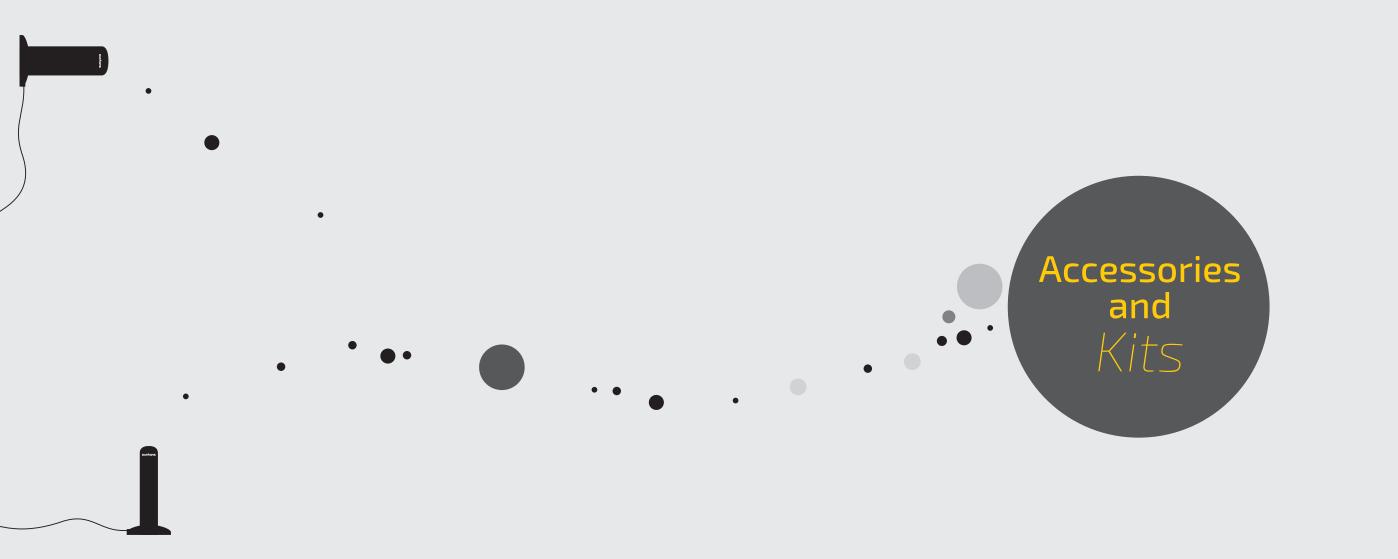
















Frequency Range: 690~2700MHz

Max Gain: 12dBi VSWR: ≤2.5

Polarization Type: Vertical

Radiation: Omni

Max. Input Power: 10W
Input Impedance: 50 Ohms
Connector Type: RP SMA male
Cable Type: RG174(best)100% cooper

Cable Length: 30cm

Frequency Range: 690~2700MHz

Max Gain: 8dBi VSWR: ≤2.5

Polarization Type: Vertical

Radiation: Omni

Max. Input Power: 10W
Input Impedance: 50 Ohms
ConnectorType: RP SMA male

Cable Type: RG174(best)100% cooper

Cable Length: 1m



Frequency Range: 690~2700MHz

**Gain:** 10dBi **VSWR:** ≤1.5

Polarization Type: Vertical

Radiation: Omni

Max. Input Power: 100W Input Impedance: 50 Ohms Connector Type: N Female Cable Length: 85cm Frequency Range: 690~2700MHz

**Gain**:15dBi **VSWR**: ≤1.5

Polarization Type: Vertical

Radiation: Omni

Max. Input Power: 100W Input Impedance: 50 Ohms Connector Type: N Female Cable Length: 85cm





Frequency Rang:690~2700MHz

Bandwidth: 154/790MHz

Max Gain:9dBi; VSWR:≤1.5

48

Beam width: H:90/70\* V:60/55 Input Impedance: 500hms

Max power: 50W
Polarization: Vertical

Lightning protection: DC ground Connector model: N female Cable length: 30cm



Frequency Rang: 690~2700MHz

Bandwidth: 154/790MHz

Max Gain: 11dBi VSWR: ≤1.5

Beam width: H:65/50\* V:55/40\* Input Impedance: 500hms

Max power: 50W
Polarization: Vertical

**Lightning protection:** DC ground **Connector model:** N female **Cable length:** 30cm







Frequency Range: 5700-5900MHz

VSWR: ≤2.5 Gain: 2dBi

Polarization Type: Vertical

Radiation: Omni

Input Impedance: 50 Ohms

Connector Type: RP-SMA male

Cable Type: RG141 100% copper

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Frequency Range: 5700-5900MHz

VSWR: ≤2.5 Gain: 2dBi

Polarization Type: Vertical

Radiation: Omni

Input Impedance: 50 Ohms

Connector Type: RP-SMA male

Cable Type: RG141 100% copper















Frequency: 800-2500MHz Power Capacity: 50W Insertion Loss: 3.1dB Isolation: 20 dB Ripple: 0.3dB **VSWR**: 1.2

Impedance: 500hms Connector Type: N female

#### SH-SP3

Frequency: 800-2500MHz Power Capacity: 50W Insertion Loss: 5.1dB Isolation: 20 dB Ripple: 0.3dB **VSWR**: 1.2

Impedance: 500hms Connector Type: N female

#### SH-SP4

Frequency: 800-2500MHz Power Capacity: 50W Insertion Loss: 6.1dB Isolation: 20 dB Ripple: 0.3dB **VSWR**: 1.2

Impedance: 500hms Connector Type: N female









#### SH-RG58A3M-N1

10m RG58 cable N male to N male RG58 50-3 ROHS Coaxial cable

#### SH-RG58A5M-N1

10m RG58 cable N male to N male RG58 50-3 ROHS Coaxial cable

#### SH-RG58A10M-N1

10m RG58 cable N male to N male RG58 50-3 ROHS Coaxial cable

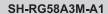












10m RG58 cable RP-SMA male to RP-SMA female RG58 50-3 ROHS Coaxial cable

#### SH-RG58A5M-A1

10m RG58 cable RP-SMA male to RP-SMA female RG58 50-3 ROHS Coaxial cable

#### SH-RG58A10M-A1

10m RG58 cable RP-SMA male to RP-SMA female RG58 50-3 ROHS Coaxial cable





#### SH-4GF3-A12 outdoor antenna

Frequency Range: 690~2700MHz

Max Gain: 12dBi **VSWR**:≤ 2.5

Input Impedance: 50 Ohms Connector Type: RP SMA male Cable Type: RG174(best)100% cooper Cable Type: RG174(best)100% cooper

Cable Length: 30cm

#### SH-4GF3-A8 indoor antenna

Frequency Range: 690~2700MHz

Max Gain: 8dBi **VSWR**: ≤2.5

Input Impedance: 50 Ohms ConnectorType: RP SMA male

Cable Length: 1m

#### SH-RG58A10M-A1

10m RG58 cable SMA

RG58 50-3 ROHS Coaxial cable







SH-4GF3-A10 indoor antenna

Frequency Range: 690~2700MHz

Max Gain: 10dBi VSWR: ≤1.5

Cable Length: 5cm

Polarization Type: Vertical
Max. Input Power: 100W
Input Impedance: 50 Ohms
Connector Type: N Female

SH-4GF3-A15 Outdoor antenna

Frequency Range: 690~2700MHz

**Gain**: 15dBi **VSWR**: ≤1.5

Polarization Type: Vertical Max. Input Power: 100W Input Impedance: 50 Ohms Connector Type: N Female Cable Length: 85cm SH-RG58A10M-N1

10m RG58 cable SMA

RG58 50-3 ROHS Coaxial cable

SH-RG58A5M-N1

5m RG58 cable SMA

RG58 50-3 ROHS Coaxial cable





SH-4GF3-A12 outdoor antenna

Frequency Range: 690~2700MHz

Max Gain: 12dBi VSWR: ≤2.0 Input Impedance: 50 Ohms

Connector Type: RP SMA male
Cable Type: RG174(best)100% cooper

Cable Length: 30cm

SH-GF5-A5 indoor antenna

Frequency Range: 690~2700MHz

Max Gain: 5dBi VSWR: ≤2.0

**Input Impedance:** 50 Ohms **Connector Type:** RP SMA male

SH-RG58A3M-A1

3m RG58 cable SMA

RG58 50-3 ROHS Coaxial cable