

Wireless Components Product Selection Charts


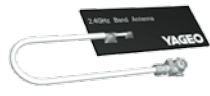
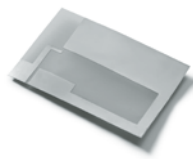

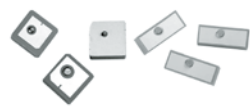
Introduction

Yageo produces a comprehensive range of wireless components, including metal/PCB/FPCB antenna, patch antenna (ceramic bulk), active antenna (LNA circuit), chip antenna, and RF components (filter/balancer).






Our products cover a wide variety of wireless communication protocols, including Bluetooth & IEEE 802.11b/g, WPAN (Wireless Personal Area Network), WLAN (Wireless Local Area Network), WMAN (Wireless Metropolitan Area Network), WWAN (Wireless Wide Area Network) and LTE (Long Term Evolution).

Wireless Components

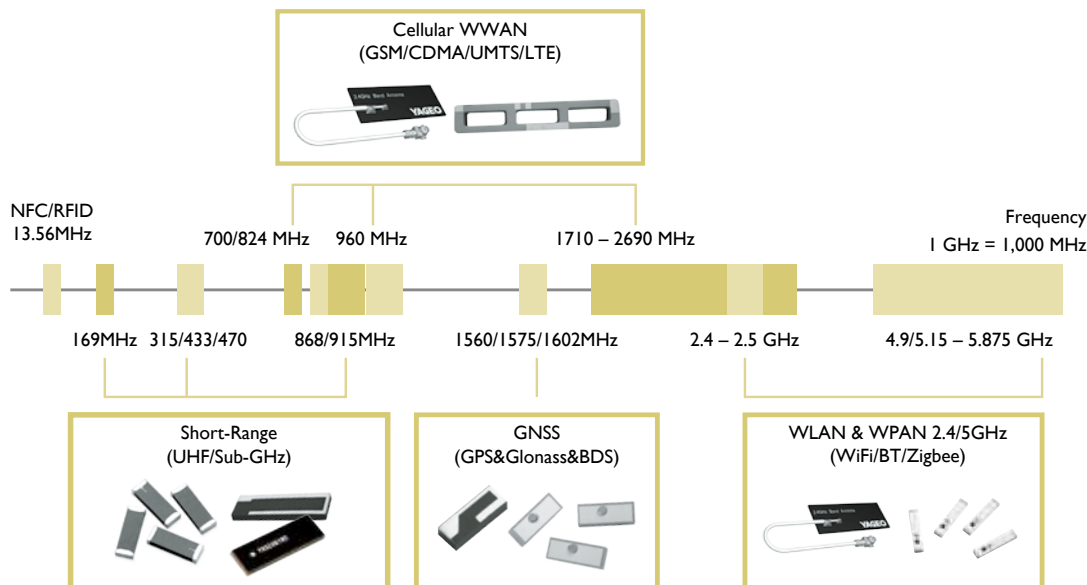
Antenna

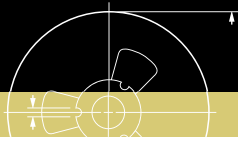
				
Metal	PCB	FPCB	LTCC / Ceramic	Patch / Ceramic

LTCC Balun/ Filter/ Balun + Filter (Combo) / X2Y

				
Balun	Filter	Diplexer	Balanced Filter	X2Y Filter

Yageo Antenna Portfolio

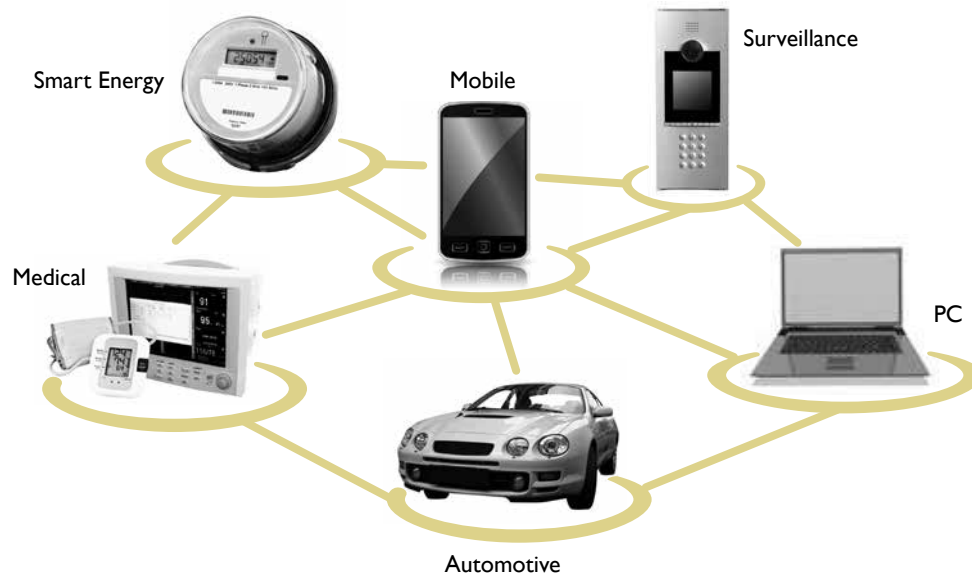




Wireless Components Selection Charts

Introduction

Portable devices, home appliances, industrial/medical equipment will be equipped with wireless connectivity for Peer-to-Peer data exchange. More wireless components are needed.



Key features of wireless components

Compact

- Maximize performance with the smallest size required
- The smallest 2.4/5 GHz antenna: PCB 18.4x7.5 mm / LTCC 1.0x0.5 mm

Multi-Band & High Efficiency

- WWAN: Quad-band (850/900/1800/1900 MHz) to Penta-band (850/900/1800/1900/2100 MHz)
- Support 4G cellular network LTE 700 MHz (Band 12,13,17), 2300/2600 MHz
- Multi-band 2.3/2.4/2.7 & 5 GHz supporting WLAN/WiMAX/LTE
- Operating in navigational systems Beidou, GPS & Glonass: 1561 - 1606 MHz

High Reliability

- Operating temperature range: -40°C ~ 105°C
- Operating humidity 95% RH at 40°C
- Vibration verification

Easy Installation

- Reliable adhesive tape, surface mount, and flexible cable/connector selection

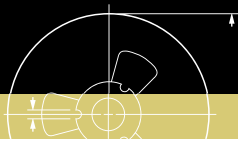
Wireless Components Selection Charts

Antenna - 2.4 GHz

2.4 GHz

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1204F001R2400A 1204 2.4GHz PIFA Chip Ante	Freq. Range: 2400~2500 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 6.66 dBi(Typ.)	Size (mm) : 12*4*2.0 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT9520LL06R2400A 9520 2.4GHz Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.5 (Max) Polarization: Linear Peak Gain : 2.85 dBi(Typ.)	Size (mm) : 9.5*2.0*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT8010LL04R2400A 8010 2.4GHz Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 5.88 dBi(Typ.)	Size (mm) : 8.0*1.0*1.0 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT7836A003R2400A 7836 2.4GHz Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 3.93 dBi(Typ.)	Size (mm) : 7.8*3.6*0.5 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT7020LL05R2400A 7020 2.4GHz Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 2.62 dBi(Typ.)	Size (mm) : 7.0*2.0*0.8 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT5320LL45R2400A 5320 2.4GHz Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 5.5 dBi(Typ.)	Size (mm) : 5.3*2.0*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT5320LL24R2400A 5320 2.4GHz PIFA Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 2.78 dBi(Typ.)	Size (mm) : 5.3*2.0*1.25 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT5010LL04R2400A 5010 2.4GHz Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 2.28 dBi(Typ.)	Size (mm) : 5.0*1.0*1.0 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT3216LL00R2400A 3216 2.4Ghz Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.5 (Max) Polarization: Linear Peak Gain : 5 dBi(Typ.)	Size (mm) : 3.2*1.6*1.3 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT3216A063R2400A 3216 2.4GHz PIFA Chip Antenna	Freq. Range: 2400~2500 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 1.69 dBi(Typ.)	Size (mm) : 3.0*1.5*0.5 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT2012LL13R2400A 2012 2.4GHz PIFA Chip Antenna	Freq. Range : 2400~2500 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 2.72 dBi(Typ.)	Size (mm) : 2.0*1.2*1.0 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1608LL14R2400A 1608 2.4GHz PIFA Chip Antenna	Freq. Range : 2400~2500 MHz VSWR* : 3.0 (Max) Polarization: Linear Peak Gain : 2.0 dBi(Typ.)	Size (mm) : 1.6*0.8*0.4 Operating Temp.: -40 ~ 105°C RoHS Compliance



* VSWR depends on the environment





Wireless Components Selection Charts

Antenna - 2.4 / 5 GHz

2.4 GHz

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1005LLI4R2400A 1005 2.4G PIFA Chip Antenna	Freq. Range : 2400~2484 MHz VSWR* : 3.0 (Max) Polarization: Linear Peak Gain : 2.21 dBi(Typ.)	Size (mm) : 1.0*0.5*0.37 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANTX200P001B24003 2.4GHz PCB Antenna - mini	Freq. Range : 2400 MHz VSWR* : 2.5 (Max) Polarization: Linear Peak Gain : 4.8 dBi(Typ.)	Size (mm) : 18.4*7.5*0.55 Operating Temp.: -40 ~ 80°C RoHS Compliance

2.4 GHz / GPS

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1003LLI5R1524A 1003 2.4GHz+GPS PIFA Chip Antenna	Freq. Range : 1575 / 2400 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 1.15 dBi / 2.90 dBi(Typ.)	Size (mm) : 10*3*1.5 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT5320LL07R1524A / 5320 2.4GHz+GPS PIFA Chip Antenna	Freq. Range : 1575 / 2400 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 2.47 dBi / 2.04 dBi(Typ.)	Size (mm) : 5.3*2.0*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance

2.4 / 5 GHz

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1003LLI5R2455A 1003 2.4+5GHz Chip Antenna	Freq. Range : 2400~2500/ 5150~5875 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 2.45 dBi / 1.55dBi(Typ.)	Size (mm) : 10*3*1.6 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT5320LL04R2455A 5320 2.4+5GHz Chip Antenna	Freq. Range : 2400~2500/ 5150~5875 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 2.72 dBi / 3.85dBi(Typ.)	Size (mm) : 5.3*2.0*1.4 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT5320LL24R2455A 5320 2.4+5GHz PIFA Chip Antenna	Freq. Range : 2400~2500/ 5150~5875 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 2.17 dBi / 3.51dBi(Typ.)	Size (mm) : 5.3*2.0*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1608LLI4R2455A 1608 2.4+5GHz Chip Antenna	Freq. Range : 2400 - 2500/5150 - 5875 MHz VSWR* : 6/3.5 (Max) Polarization: Linear Peak Gain : 3.11 / 3.43 dBi(Typ.)	Size (mm) : 1.6*0.8*0.4 Operating Temp.: -40~105°C RoHS Compliance
	ANT3216A063R2455A 3216 2.4+5GHz PIFA Chip Antenna	Freq. Range : 2400 - 2500/5150 - 5875 MHz VSWR* : 2 (Max) Polarization: Linear Peak Gain : 1.59 / 2.23 dBi(Typ.)	Size (mm) : 3.0*1.5*0.5 Operating Temp.: -40~105°C RoHS Compliance
	ANTX200P002B24553 2.4+5GHz PCB Antenna	Freq. Range : 2400 - 2500/5150 - 5875MHz VSWR* : 2.5 (Max) Polarization: Linear Peak Gain : 2.3 dBi(Typ.)	Size (mm) : 40*43*0.55 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANTX100P001B24553 2.4+5GHz PCB Antenna	Freq. Range : 2400~2500/ 5150~5875 MHz VSWR* : 2.5 (Max) Polarization: Linear Peak Gain : 5.1 dBi(Typ.)	Size (mm) : 50*10*0.9 Operating Temp.: -40 ~ 80°C RoHS Compliance


* VSWR depends on the environment



Wireless Components Product Selection Charts






Antenna - 5 GHz/ Cellular WWAN / Short Range

5 GHz



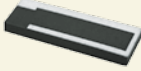


Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT3216LL05R5000A 3216 5GHz Chip Antenna	Freq. Range : 5150~5875 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 5.71 dBi(Typ.)	Size (mm) : 3.2*1.6*1.3 Operating Temp.: -40 ~ 105°C RoHS Compliance

* VSWR depends on the environment

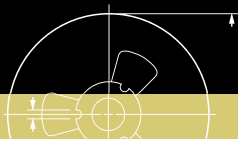
Cellular WWAN

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT2112A010B0918A 2112 Cellular-Band Chip Antenna	Freq. Range : 824~960 / 1710~1990 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 0.5 ~ 1 dBi(Typ.)	Size (mm) : 21*12*0.5 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT3505B002TWPENS 3505 Penta-band Antenna	Freq. Range : 824~960 / 1710~2170 MHz VSWR* : 2.8 / 3.5 (Max) Polarization: Linear Peak Gain : 2.9 dBi(Typ.)	Size (mm) : 35*5*6 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1204LL00R0918A 1204 Cellular-Band Chip Antenna	Freq. Range : 900/1800 MHz VSWR* : 3.0 (Max) Polarization: Linear Peak Gain : N/A	Size (mm) : 12*4*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANTX100P001BWPEN3 Penta-band PCB Antenna	Freq. Range : 824~960 / 1710~2170 MHz VSWR* : 2.5 Max (Low Band) 3.5 Max (High Band) Polarization: Linear Peak Gain : 4.2 dBi(Typ.)	Size (mm) : 50*20*0.55 Operating Temp.: -40 ~ 80°C Cable* : Φ1.13 / 100mm Connector: I-PEX Mounting: Adhesive Tape RoHS Compliance
	ANT4005B000RVHEXS 4005 LTE Antenna	Freq. Range : 698 - 960/1710 - 2690 MHz VSWR* : 3.0 Max (Low Band) Polarization: Linear Peak Gain : 3.2 / 4.0 dBi(Typ.)	Size (mm) : 40*5*6 Operating Temp.: -40 ~ 80°C RoHS Compliance

Short-Range

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1204LL05R0915A 1204 915MHz Chip Antenna	Freq. Range : 915 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 3.32 dBi(Typ.)	Size (mm) : 12*4*1.6 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1204LL08R0870A 1204 870MHz Chip Antenna	Freq. Range : 870 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 0.5 dBi(Typ.)	Size (mm) : 12*4*1.6 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1204LL17R0870A 1204 870MHz PIFA Chip Antenna	Freq. Range : 870 MHz VSWR* : 2.8 (Max) Polarization: Linear Peak Gain : 1.05 dBi(Typ.)	Size (mm) : 12*4*1.0 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT7020LL05R0870A 7020 870MHz Chip Antenna	Freq. Range : 870 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : N/A	Size (mm) : 7.0*2.0*0.7 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1204F002R0433A 1204 433MHz Chip Antenna	Freq. Range : 315/ 433 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : 0.79 dBi(Typ.)	Size (mm) : 12*4*1.6 Operating Temp.: -40 ~ 105°C RoHS Compliance





* VSWR depends on the environment




Wireless Components Selection Charts

Antenna - Short-Range / GPS

Short-Range

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1204LL20R0433A 1204 433MHz Chip Antenna	Freq. Range : 315/ 433 MHz VSWR *: 3.0 (Max) Polarization : Linear Peak Gain : 0.83 dBi(Typ.)	Size (mm) : 12*4*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT2405F001R0169A 2405 169MHz Chip Antenna	Freq. Range : 169 MHz VSWR *: 2.0 (Max) Polarization : Linear Peak Gain : N/A	Size (mm) : 24*5*1.6 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1204F005R0915A 1204 915MHz Chip Antenna	Freq. Range : 915 MHz VSWR *: 2.0 (Max) Polarization : Linear Peak Gain : 1.59 dBi(Typ.)	Size (mm) : 12*4*1.6 Operating Temp.: -40 ~ 85°C RoHS Compliance
	ANT1204F007R0870A 1204 870MHz Chip Antenna	Freq. Range : 870 MHz VSWR *: 2.0 (Max) Polarization : Linear Peak Gain : 1.67 dBi(Typ.)	Size (mm) : 12*4*1.6 Operating Temp.: -40 ~ 85°C RoHS Compliance

GPS


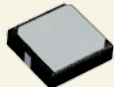



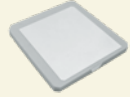






Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT8010LL05R1575A 8010 GPS Chip Antenna	Freq. Range : 1575 MHz VSWR *: 2.0 (Max) Polarization : Linear Peak Gain : 0.67 dBi(Typ.)	Size (mm) : 8.0*1.0*1.0 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT5320LL14R1575A 5320 GPS PIFA Chip Antenna	Freq. Range : 1575 MHz VSWR *: 2.0 (Max) Polarization : Linear Peak Gain : 3.16 dBi(Typ.)	Size (mm) : 5.3*2.0*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT3216LL15R1575A 3216 GPS PIFA Chip Antenna	Freq. Range : 1575 MHz VSWR *: 2.0 (Max) Polarization : Linear Peak Gain : 7.32 dBi(Typ.)	Size (mm) : 3.2*1.6*1.2 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT1010B00FT1575S 10104 GPS Patch Antenna	Freq. Range : 1575 MHz VSWR *: 2.0 (Max) Polarization : RHCP Peak Gain : -3 dBic(Typ.)	Size (mm) : 10*10*4 Operating Temp.: -40 ~ 105°C Mounting : PIN RoHS Compliance
	ANT1212B00DT1575S 12124 GPS Patch Antenna	Freq. Range : 1575 MHz VSWR *: 2.0 (Max) Polarization : RHCP Peak Gain : -1 dBic(Typ.)	Size (mm) : 12*12*4 Operating Temp.: -40 ~ 105°C Mounting : PIN RoHS Compliance
	ANT1515B00DT1575S 15154 GPS Patch Antenna	Freq. Range : 1575 MHz VSWR *: 2.0 (Max) Polarization : RHCP Peak Gain : 1.5 dBic(Typ.)	Size (mm) : 15*15*4 Operating Temp.: -40 ~ 105°C Mounting : PIN RoHS Compliance
	ANT1515B00FT1575S 15154 GPS Patch Ant	Freq. Range : 1575 MHz VSWR *: 2.0 (Max) Polarization : RHCP Peak Gain : 2.0 dBic(Typ.)	Size (mm) : 15*15*4 Operating Temp.: -40 ~ 105°C Mounting : PIN RoHS Compliance

* VSWR depends on the environment

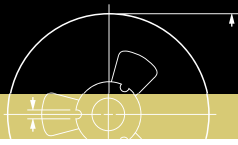


Wireless Components Selection Charts

Antenna - GPS

GPS			
Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1818B00AT1575S 18182 GPS Patch Antenna	Freq. Range : 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 2 dBic(Typ.)	Size (mm): 18*18*2 Operating Temp.: -40 ~ 105°C Mounting: SMD RoHS Compliance
	ANT1818B00BT1575S 18184 GPS Patch Antenna	Freq. Range : 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 2 dBic(Typ.)	Size (mm): 18*18*4 Operating Temp.: -40 ~ 105°C Mounting: SMD RoHS Compliance
	ANT1818B00CT1575S 18182 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 2 dBic(Typ.)	Size (mm): 18*18*2 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT1818B00DT1575S 18184 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 4 dBic(Typ.)	Size (mm): 18*18*4 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT1818B00ET1575S 18182 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 2 dBic(Typ.)	Size (mm): 18*18*2 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT2525B00AT1575S 25252 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 5 dBic(Typ.)	Size (mm): 25*25*2 Operating Temp. : -40 ~ 105°C Mounting: SMD RoHS Compliance
	ANT2525B00BT1575S 25254 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 5.5 dBic(Typ.)	Size (mm): 25*25*4 Operating Temp. : -40 ~ 105°C Mounting: SMD RoHS Compliance
	ANT2525B00CT1575S 25252 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 4.5 dBic(Typ.)	Size (mm): 25*25*2 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT2525B00DT1575S 25254 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 5 dBic(Typ.)	Size (mm): 25*25*4 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT2525B00ET1575S 25252 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 4.5 dBic(Typ.)	Size (mm): 25*25*2 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT2525B00FT1575S 25254 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain: 5 dBic(Typ.)	Size (mm): 25*25*4 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT1606B00DT1575S 16064 GPS Patch Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain: -0.5 dBic(Typ.)	Size (mm): 16*6*4 Operating Temp. : -40 ~ 105°C Mounting: PIN RoHS Compliance




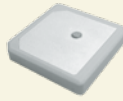
* VSWR depends on the environment






Wireless Components Selection Charts

Antenna - GPS / Glonass / Active Antenna / GPS + BD


GPS+Glonass

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1818B00BT1516S 18184 Gps+Glonass Patch Antenna	Freq. Range: 1575 / 1602 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain: 1.89 / 2.59 dBi(Typ.)	Size (mm): 18*18*4 Operating Temp.: -40 ~ 105°C Mounting: SMD RoHS Compliance
	ANT1818B00DT1516S 18184 Gps+Glonass Patch Antenna	Freq. Range: 1575 / 1602 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain: 2.65 / 2.79 dBi (Typ.)	Size (mm): 18*18*4 Operating Temp.: -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT2525B00BT1516S 25254 Gps+Glonass Patch Antenna	Freq. Range: 1575 / 1602 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain: 3.44 / 4.10 dBi (Typ.)	Size (mm): 25*25*4 Operating Temp.: -40 ~ 105°C Mounting: SMD RoHS Compliance
	ANT2525B00DT1516S 25254 Gps+Glonass Patch Antenna	Freq. Range: 1575 / 1602 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain: 3.5 / 3.8 dBi (Typ.)	Size (mm): 25*25*4 Operating Temp.: -40 ~ 105°C Mounting: PIN RoHS Compliance

Active GPS

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT2525JB08B1575A 25256.9 GPS Active Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP LNA Gain: 16 dB (Typ.) Antenna Gain: 5.5 dBic(Typ.)	Size (mm): 25*25*6.9 Cable* (mm): 1.13*75 Operating Temp.: -30 ~ 85°C RoHS Compliance
	ANT1515JB27B1575A 15156.5 GPS Active Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: RHCP LNA Gain: 20.5 dB (Typ.) Antenna Gain: 1.0 dBic(Typ.)	Size (mm): 15*15*6.5 Cable* (mm): 1.13*100 Operating Temp.: -30 ~ 85°C RoHS Compliance
	ANT1606JB12B1575A 20066.4 GPS Active Antenna	Freq. Range: 1575 MHz VSWR* : 2.0 (Max) Polarization: Linear LNA Gain: 20 dB (Typ.) Antenna Gain: 0.35 dBic (Typ.)	Size (mm): 20*6*6.4 Cable* (mm): 1.37*93 Operating Temp.: -30 ~ 85°C RoHS Compliance

Active GPS+Glonass

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT8010JLC1B1516A 22061.9 GPS+Glonass Active Antenna	Freq. Range: 1575/1602 MHz VSWR* : 2.0 (Max) Polarization: Linear LNA Gain: 20 / 20 dB (Typ.) Antenna Gain: 5.88 dBic(Typ.)	Size (mm): 22*6*1.9 Cable* (mm): 1.13*100 Operating Temp.: -30 ~ 85°C RoHS Compliance




* VSWR depends on the environment / * Cable/Connector is customizable




Wireless Components Selection Charts

Antenna - GNSS / FM / SDARS, Filter (BPF)


GNSS

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT1204LL04RGNSSA 1204 GNSS Chip Antenna	Freq. Range : 1559 - 1610 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain : 2.32 dBic(Typ.)	Size (mm): 12*4*1.1 Operating Temp.: -40 ~ 105°C RoHS Compliance
	ANT2525B00FTGNSSS 25254 GNSS Patch Antenna	Freq. Range : 1559 - 1610 MHz VSWR* : 2.0 (Max) Polarization: RHCP Peak Gain : 5.16 dBic(Typ.)	Size (mm): 25*25*4 Operating Temp.: -40 ~ 105°C Mounting: PIN RoHS Compliance
	ANT1818B00FTGNSSS 18184 GNSS Patch Antenna	Freq. Range : 1559 - 1610 MHz VSWR* : 3.5 (Max) Polarization: RHCP Peak Gain : 3 dBic(Typ.)	Size (mm): 18*18*4 Operating Temp.: -40 ~ 105°C Mounting: PIN RoHS Compliance






FM

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT2405F001R0098A 2405 FM Chip Antenna	Freq. Range : 88 MHz VSWR* : 2.0 (Max) Polarization: Linear Peak Gain : N/A	Size (mm): 24*5*1.6 Operating Temp.: -40 ~ 105°C RoHS Compliance

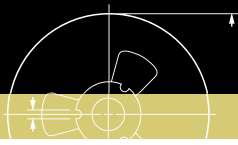
SDARS

Model	Part No./ Description	Electrical Data	Mechanical Data
	ANT2020B00FT2300S 20204 SDARS Patch Antenna	Freq. Range : 2320~2345 MHz VSWR* : 2.0 (Max) Polarization: LHCP Peak Gain : 6 dBic(Typ.)	Size (mm): 20*20*4 Operating Temp.: -40 ~ 105°C Mounting: PIN RoHS Compliance

Filter (BPF)

Model	Part No./ Description	Electrical Data	Mechanical Data	
	BPF2520LL03R2400A 2520 2.4G BPF Type03	Freq. Range: 2400-2500MHz Insertion Loss: 1.5dB(Max) VSWR* : 2.0dB(Max)	Attenuation 40dB Min @ 880~960MHz 30dB Min @ 1710~1785MHz 30dB Min @ 1850~1910MHz 20dB Min @ 4800~5000MHz 30dB Min @ 7200~7500MHz	Size(mm): 2.5*2.0*0.95 Operating Temp.: -40~85°C RoHS Compliance
	BPF2012LL03R2400A 2012 2.4G BPF Type03	Freq. Range: 2400-2500MHz Insertion Loss: 2.3dB(Max) VSWR* : 2.0dB(Max)	Attenuation 40dB Min @ 1000~1600MHz 40dB Min @ 4900MHz 25dB Min @ 7500MHz	Size(mm): 2.0*1.25*1.0 Operating Temp.: -40~85°C RoHS Compliance
	BPF2012LL01R5000A 2012 5G BPF Type01	Freq. Range: 4900-5950 MHz Insertion Loss: 1.5dB (Max) VSWR* : 2.0 (Max)	Attenuation: 30dB Min @ 1280~3000MHz 25dB Min @ 3300~4000MHz 25dB Min @ 9800~11900MHz	Size(mm): 2.0*1.2*1 Operating Temp.: RoHS Compliance
	BPF1608LM02R2400A 1608 2.4G BPF Type02	Freq. Range: 2400-2500 MHz Insertion Loss: 1.7 dB (Max) VSWR* : 2.0 (Max)	Attenuation: 30dB Min @ 880~960 MHz 20dB Min @ 1710~1990 MHz 8.5dB Min @ 2170 MHz 20dB Min @ 4800~5000 MHz 25dB Min @ 7200~7500 MHz	Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance
	BPF1005LM03R2400A 1005 2.4G BPF Type03, L.L.	Freq. Range: 2400-2500MHz Insertion Loss: 1.5dB(Max) VSWR* : 2.0dB (Max)	Attenuation 10dB Min @ 880 ~ 960MHz 25dB Min @ 4800 ~ 5000MHz 25dB Min @ 7200 ~ 7500MHz	Size(mm): 1.0*0.5*0.35 Operating Temp.: -40~85°C RoHS Compliance

* VSWR depends on the environment



Wireless Components Selection Charts

Filter (LPF)

Filter (LPF)








Model	Part No./ Description	Electrical Data	Mechanical Data
	LPF2012LM59RWPENA 2012 LTE LPF Type59	Freq. Range: 800-2025 MHz Insertion Loss: 0.5dB Max @ 800~1000MHz 0.8dB Max @ 1700~1910MHz 1.5dB Max @ 2120~2025MHz VSWR* : 1.5 (Max)	Attenuation 26dB Min @ 2300~6100MHz 35dB Min @ 3400~3820MHz Size(mm): 2.0*1.25*0.9 Operating Temp.: -40~85°C RoHS Compliance
	LPF1608LL53R2400A 1608 2.4G LPF Type53	Freq. Range: 2400-2500 MHz Insertion Loss: 0.48dB (Max) VSWR* : 1.5 (Max)	Attenuation: 35dB Min @ 4800~5000 MHz 27dB Min @ 7200~7500 MHz Size(mm): 1.6*0.8*0.65 Operating Temp.: -40~85°C RoHS Compliance
	LPF1608LL52R2500A 1608 Wimax LPF Type52	Freq. Range: 2300-2700MHz Insertion Loss: 1.25dB(Max) VSWR* : 1.5dB(Max)	Attenuation: 35dB Min @ 4800~5390MHz 25dB Min @ 7200~8085MHz Size(mm): 1.6*0.8*0.65 Operating Temp.: -40~105 °C RoHS Compliance
	LPF1608LL54RWHEXA 1608 LTE LPF Type54	Freq. Range: 699-2690MHz Insertion Loss: 0.25dB(Max) VSWR* : 1.5dB (Max)	Attenuation: 23dB Min @ 5150~5960MHz Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85 °C RoHS Compliance
	LPF1608LL55R0709A 1608 LTE LPF Type55	Freq. Range: 698-960MHz Insertion Loss: 0.6dB Max @ 698~830MHz 0.7dB Max @ 830~900MHz 0.75dB Max @ 900~915MHz 0.9dB Max @ 915~960MHz VSWR* : 2.0dB (Max)	Attenuation 30dB Min @ 1554~1830MHz 35dB Min @ 2097~2745MHz Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance
	LPF1608LL56RWHEXA 1608 LTE LPF Type56	Freq. Range: 600-2700MHz Insertion Loss: 0.5dB(Max) VSWR* : 2.0dB (Max)	Attenuation: 30dB Min @ 4800~8000MHz 25dB Min @ 8500~12500MHz Size(mm): 1.6*0.8*0.65 Operating Temp.: -40~85 °C RoHS Compliance
	LPF1608LL57RWHEXA 1608 LTE-Hexa LPF Type57	Freq. Range: 600-2690MHz Insertion Loss: 0.5dB(Max) VSWR* : 2.0dB(Max)	Attenuation 35dB Min @ 4950 ~ 6000MHz 30dB Min @ 6000 ~ 12500MHz Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85 °C RoHS Compliance
	LPF1608LL60R0709A 1608 0.7-0.9GHz LPF Type60	Freq. Range: 698-960 MHz Insertion Loss: 0.6(Max) VSWR* : 2.0dB(Max)	Attenuation 13dB Min @ 1554~1610MHz 35dB Min @ 1805~1830MHz 35dB Min @ 2110~2170MHz 30dB Min @ 1710~2700MHz Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85 °C RoHS Compliance
	LPF1608LL61R0780A 1608 787MHz LPF Type61	Freq. Range: 746-787 MHz Insertion Loss: 0.6(Max) VSWR* : 2.0dB (Max)	Attenuation 30dB Min @ 1554~1610MHz 25dB Min @ 2238~2361MHz Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85 °C RoHS Compliance
	LPF1608LL62R1719A 1608 1.7-1.9GHz LPF Type62	Freq. Range: 1710-1910 MHz Insertion Loss: 0.8(Max) VSWR* : 2.0dB(Max)	Attenuation 20dB Min @ 2400~2500MHz 25dB Min @ 3700~3820MHz Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85 °C RoHS Compliance
	LPF1005LL50R2400A 1005 2.4G LPF Type50	Freq. Range: 2400-2500MHz Insertion Loss: 0.5dB(Max) VSWR* : 2.0dB(Max)	Attenuation: 25dB Min @ 4800~5000MHz 20dB Min @ 7200~7500MHz Size(mm): 1.0*0.5*0.35 Operating Temp.: -40~85 °C RoHS Compliance

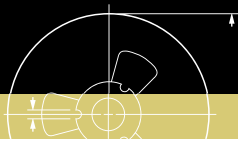
* VSWR depends on the environment



Wireless Components Selection Charts

Filter (Diplexer)




Filter (Diplexer)				
Model	Part No./ Description	Electrical Data	Attenuation	Mechanical Data
	DPX2012LL76R2455A 2012 2.4/5GHz Diplexer Type76	Freq. Range: 2400~2500MHz/ 4900~5950MHz Insertion Loss: Low: 0.65dB(Max) High: 0.65dB(Max) VSWR *: 2.0 (Max)	Low Band: 20dB(Min).@4800~5000MHz 20dB(Min).@7200~7500MHz High Band: 20dB (Min).@824~915MHz 20dB (Min).@1800~2500MHz 15dB (Min).@9800~11900MHz	Size(mm): 2.0*1.25*0.5 Operating Temp.: -40~85°C RoHS Compliance
	DPX2012LL75R2455A 2012 2.4/5GHz Diplexer Type75	Freq. Range: 2400~2500MHz/ 4900~5950MHz Insertion Loss: Low: 0.65dB(Max) High: 0.65dB(Max) VSWR *: 2.0dB (Max)	Low Band: 20dB(Min).@4800~5000MHz 20dB(Min).@7200~7500MHz High Band: 20dB(Min).@824~915 MHz 20dB(Min).@1800~2500 MHz 15dB(Min).@9800~11900 MHz	Size(mm): 2.0*1.25*0.5 Operating Temp.: -40~85°C RoHS Compliance
	DPX1608LL88R1524A 1608 1.575/2.4GHz Diplexer Type88	Freq. Range: 1559-1610MHz/ 2400-2500 MHz/ 4900-6000 MHz Insertion Loss: Low: 0.6dB(Typ) High Band: 0.7/ 0.6dB(Typ) VSWR *: 2.0(Max)/ 10.0dB(Min)	Low Band: 18dB(Min).@2400~2500MHz 15dB(Min).@4900~6000MHz High Band: 20dB(Min).@1575~1610MHz	Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance
	DPX1608LL87R1524A 1608 1.575/2.4GHz Diplexer Type87	Freq. Range: 1570-1610MHz/ 2400-2500 MHz/4900-6000 MHz Insertion Loss: Low: 0.6dB/ High: 0.7dB/0.6dB VSWR *: 2.0 dB (Max)	Low Band: 15dB(Min) @2400~2500MHz 15dB(Min) @4900~6000MHz High Band: 15dB(Min) @1570~1610MHz	
	DPX1608LL80R2455A 1608 2.4/5GHz Diplexer Type80	Freq. Range: 2400-2500MHz/ 4900-6000MHz Insertion Loss: Low: 0.7dB/ High: 0.8dB VSWR *:	Low Band: 20dB(Min). @4800~5000MHz 20dB(Min). @7200~7500MHz High Band: 28dB(Min). @860~960MHz 23dB(Min). @1545~1605MHz 23dB(Min). @1710~1990MHz 28dB(Min). @2170MHz 8dB(Min). @8100MHz 15dB(Min). @8820~9800MHz 27dB(Min). @9800~11800MHz	Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance
	DPX1608LL85R2455A 1608 2.4/5GHz Diplexer Type85	Low: 2.0dB(Max)/ High: 1.7dB(Max)		Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance
	DPX1608LL86R2455A 1608 2.4/5GHz Diplexer Type86	Freq. Range: 2400-2500MHz/ 4900-5950MHz Insertion Loss: Low: 0.6dB/ High: 1.2dB VSWR *: 2.0 (Max)	Low Band: 20dB(Min).@4800-5000MHz High Band: 28dB(Min).@30-2700MHz 10dB(Min).@9800-11900MHz 5dB(Min).@14700-17850MHz	Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance




Wireless Components Selection Charts

Filter (Diplexer)



Filter (Diplexer)

Model	Part No./ Description	Electrical Data	Mechanical Data	
	DPX1608LL82R2455A 1608 2.4/5GHz Diplexer Type82	Freq. Range: 2400~2500MHz/ 4900~6000MHz Insertion Loss: Low: 0.5dB(Max) High: 1.0dB(Max) VSWR* : 2.0dB (Max)	Attenuation Low Band: 25dB(Min).@4800~5000MHz 25dB(Min).@7200~7500MHz High Band: 32dB(Min).@300~2700MHz 15dB(Min).@9800~11900MHz 11dB(Min).@14700~17850MHz	Size(mm): 1.68*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance
	DPX1608LL76R1925A 1608 1.9/2.5GHz Diplexer Type76	Freq. Range: 1710-1880MHz/ 2500-2690 MHz Insertion Loss: Low: 0.7dB(Max) High: 0.8dB(Max) VSWR* : 2.0dB (Max)	Attenuation Low Band: 15dB (Min).@2500~2690MHz High Band: 15dB (Min).@1710~1880MHz	Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance
	DPX1608LM70R0917A 1608 0.9/1.7GHz Diplexer Type70	Freq. Range: 698-960MHz/ 1710-2700 MHz Insertion Loss: Low: 0.8dB(Max) High: 0.7dB(Max) VSWR* : 2.0dB (Max)	Attenuation Low Band: 25dB (Min).@1710~2700MHz High Band: 20dB (Min).@698~960MHz 20dB (Min).@5150~5850MHz	Size(mm): 1.6*0.8*0.6 Operating Temp.: -40~85°C RoHS Compliance

Filter (Triplexer)

Model	Part No./ Description	Electrical Data	Mechanical Data	
	TPX2012LL90R1525A 2012 1.575/2.4/5GHz Triplexer Type90	Freq. Range: 1570-1610MHz/ 2400-2500MHz/4900-5950MHz Insertion Loss: Low: 0.8dB/ Mid.: 0.7dB/ High: 0.8dB VSWR* : Low: 2.0dB(Max)/ Mid.: 2.0dB(Max) High: 1.6dB(Max)	Attenuation: Low Band: 20dB(Min).@2400~2500MHz 20dB(Min).@4800~6000MHz Mid Band: 17.5dB(Min).@4800~5000MHz 10dB(Min).@1545~1605MHz 10dB(Min).@9600~10000MHz High Band: 27dB(Min).@860~960MHz 25dB(Min).@1545~1605MHz 25dB(Min).@1710~1990MHz 30dB(Min).@2170MHz 8dB(Min).@8100MHz 15dB(Min).@8820~9800MHz 27dB(Min).@9800~10760MHz 25dB(Min).@10760~11800MHz	Size(mm): 2.0*1.2*0.9 Operating Temp.: -40~85°C RoHS Compliance






Balun

Model	Part No./ Description	Electrical Data	Mechanical Data	
	BLN1608LL01R5000A 1608 5G Balun Type01, 50100	Freq. Range: 4900-5950MHz Insertion Loss: 1.2 dB (Max) VSWR* : 2.0 (Max)	Unbalanced Impedance: 50Ω Balanced Impedance: 100Ω Phase Difference: 180 ±10 degree Amplitude Difference: 1.5 dB (Max)	Size(mm): 1.6*0.8*0.65 Operating Temp.: -40~85°C RoHS Compliance
	BLN1608LL01R2400A 1608 2.4G Balun Type01, 50100	Freq. Range: 2400-2500MHz Insertion Loss: 1.1 dB (Max) VSWR* : 2.0 (Max)	Unbalanced Impedance: 50Ω Balanced Impedance: 100Ω Phase Difference: 180 ±10 degree Amplitude Difference: 2 dB (Max)	Size(mm): 1.6*0.8*0.65 Operating Temp.: -40~85°C RoHS Compliance




Wireless Components Selection Charts



Filter (Duplexer), Balance Filter (Combo), Coupler

	BLN1608LL30R2400A 1608 2.4G Balun Type30, 5050	Freq. Range: 2400-2500MHz Insertion Loss: 1.2dB(Max) VSWR*: 2.0dB(Max)	Unbalanced Impedance: 50Ω Balanced Impedance: 50Ω Phase Difference: 180 ± 10 degree Amplitude Difference: 2 dB (Max)	Size(mm): 1.6*0.8*0.65 Operating Temp.: -40~85°C RoHS Compliance
	BLN1005LM39R2500A 1005 2.3-2.7GHz Balun Type39, 5050	Freq. Range: 2300~2690MHz Insertion Loss: 0.6 (Max) VSWR*: 2.0dB (Max)	Unbalanced Impedance: 50Ω Balanced Impedance: 100Ω Phase Difference: 180 ± 17 degree Amplitude Difference: ± 3.7 dB (Max)	Size(mm): 1.0*0.5*0.35 Operating Temp.: -40~85°C RoHS Compliance
	BLN0605LL39R2500A 0605 2.3-2.7GHz Balun Type39, 5050	Freq. Range: 2300~2690MHz Insertion Loss: 0.6 dB (Max) VSWR*: 2.0dB (Max)	Unbalanced Impedance: 50Ω Balanced Impedance: 100Ω Phase Difference: 180 ± 10degree Amplitude Difference: ± 2 dB (Max)	Size(mm): 0.65*0.5*0.35 Operating Temp.: -40~85°C RoHS Compliance
	BLN0605LM09R0780A 0605 LSMH/EUDD Balun Type09, 5050	Freq. Range: 729~821MHz Insertion Loss: 0.6 dB (Max) VSWR*: 2.0dB (Max)	Unbalanced Impedance: 50Ω Balanced Impedance: 100Ω Phase Difference: 180 ± 10degree Amplitude Difference: ± 2 dB (Max)	Size(mm): 0.65*0.5*0.35 Operating Temp.: -40~85°C RoHS Compliance
	BLN0605LL19R1880A 0605 PCS/DCS RX Balun Type19, 5050	Freq. Range: 1805~1990MHz Insertion Loss: 0.6 dB (Max) VSWR*: 2.0dB (Max)	Unbalanced Impedance: 50Ω Balanced Impedance: 100Ω Phase Difference: 180 ± 10degree Amplitude Difference: ± 2 dB (Max)	Size(mm): 0.65*0.5*0.35 Operating Temp.: -40~85°C RoHS Compliance

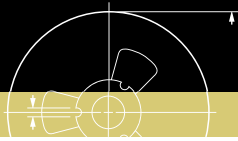
Balance Filter (Combo)

Model	Part No./ Description	Electrical Data	Mechanical Data
	BLF2012LL98R2400A 2012 2.4G Combo Type98	Freq. Range: 2400-2500MHz Insertion Loss: 3.5dB (Max) VSWR*: 2.0 (Max) Unbalanced Impedance: 50Ω Balanced Impedance: Conjugate match to CSR BC03/04 series Phase Difference: 180 ±5 degree @25°C Amplitude Balance: 1.0 dB (Max)	Attenuation: 40dB Min@880~960MHz 25dB Min@1300~1600MHz 35dB Min@4800~5000MHz 30dB Min@7200~7500MHz Size(mm): 2.0*1.2*0.9 Operating Temp.: -40~85°C RoHS Compliance

Coupler

Model	Part No./ Description	Electrical Data	Mechanical Data
	CPL451171509HEX4K 1608 VWWAN<E Coupler Type09	Freq. Range: 689.5-960.5MHz 1700-2100MHz/2300-2700MHz Insertion Loss: 0.25dB(Max)/ 0.3dB(Max)/ 0.4dB(Max) VSWR*: 1.4dB(Max)	Coupling: 23~28dB@689.5-960.5MHz 19.5~22.5dB@1700-2100MHz 19.5~24.5dB@2300-2700MHz Size(mm): 1.6*0.8*0.7 Operating Temp.: -40~85°C RoHS Compliance
	CPL1608LL12WHEXA 1608 VWWAN<E Coupler Type12	Freq. Range: 689-960MHz 1710-2170MHz/2300-2690MHz Insertion Loss: 0.2dB(Max)/ 0.25dB(Max)/ 0.3dB(Max) VSWR*: 1.45dB(Max)	Coupling: 23~27dB@689-960MHz 21.5~26.5dB@1710-2170MHz 22.5~27.5dB@2300-2690MHz Size(mm): 1.6*0.8*0.6 Operating Temp.: -30~85°C RoHS Compliance

* VSWR depends on the environment

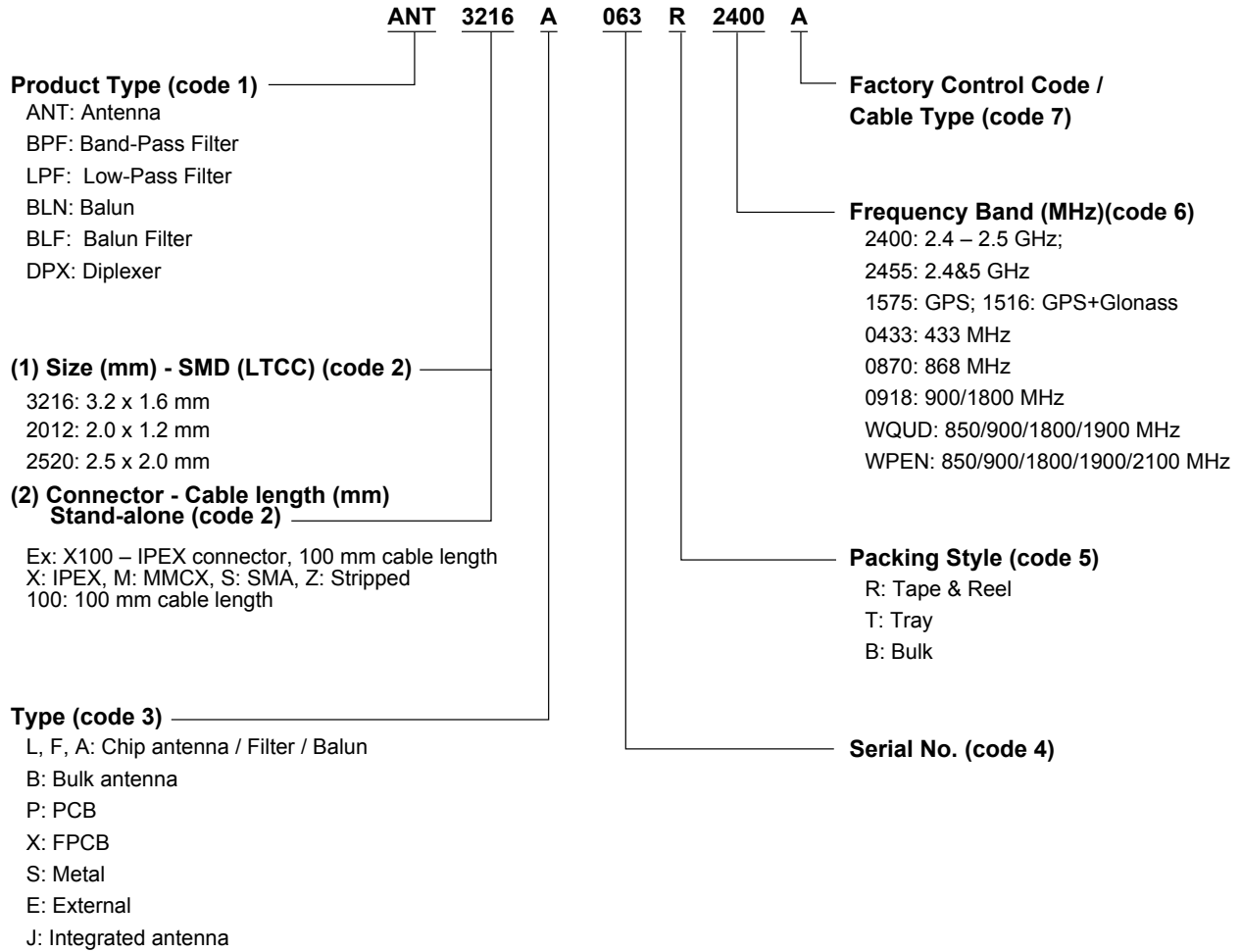


Wireless Components Selection Charts

Product information - Ordering Information

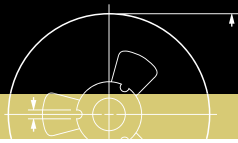
Explanation of ordering code - New

Ordering example : **ANT3216A063R2400A**



M2M Application : Antenna, Ordering code ANTSB000000020150					
Product	Series	Dimension (mm)	PART NUMBER	Frequency Range (MHz)	
Antenna	2.4GHz	8*1*1	ANT8010LL04R2400A	2400 - 2500	
		3*1.5*0.5	ANT3216A073R2400A	2400 - 2500	
		3.2*1.6*1.2	ANT3216LL00R2400A	2400 - 2500	
		2*1.2*1	ANT2012LL13R2400A	2400 - 2500	
		1.6*0.8*0.4	ANT1608LL14R2400A	2400 - 2500	
		30*5*0.15	ANTX100F113B24003	2400 - 2500	
	2.4/5 GHz	5.3*2*1.1	5.3*2*1.1	ANT5320LL24R2455A	2400 - 2500 5150 - 5875
				ANT3216A073R2455A	2400 - 2500 5150 - 5875
		3*1.5*0.5	3*1.5*0.5	ANT3216LL14R2455A	2400 - 2500 5150 - 5875
				ANT1608LL14R2455A	2400 - 2500 5150 - 5875
		40*6*0.15	40*6*0.15	ANTX100F112B24553	2400 - 2500 5150 - 5875
	GPS	8*1*1	8*1*1	ANT8010LL05R1575A	1575
			5.3*2*1.2	ANT5320LL14R1575A	1575
			3.2*1.6*1.2	ANT3216LL15R1575A	1575
			12*12*4	ANT1212B00DT1575S	1575
			15*15*4	ANT1515B00FT1575S	1575
			18*18*2	ANT1818B00AT1575S	1575
	GNSS	25*25*4	ANT2525B00FTGNSSS	1559 - 1610	
	GPS& GLONASS	5.3*2*1.2	5.3*2*1.2	ANT5320LL14R1516A	1575 / 1602
			8*1*1	ANT8010LL05R1516A	1575 / 1602
			18*18*4	ANT1818B00BT1516S	1575 / 1602
			25*25*4	ANT2525B00DT1516S	1575 / 1602
	2.4GHz + GPS	5.3*2*1.2	ANT5320LL17R1524A	1575 / 2400	
	Cellular WWAN	21*12*0.9	21*12*0.9	ANT2112LL00B0918A	880 - 960 1710 - 1880
				ANT1204LL00R0918A	900 / 1800
		35*5*6	35*5*6	ANT3505B002TWPENS	824 - 960 1710 - 2170
				ANTX100P001BWPEN3	824 - 960 1710 - 2170
		40*5*6	40*5*6	ANT4005B000RWHEXS	698 - 960 1710 - 2690
	Short-Range	24*0.5*1.6	24*0.5*1.6	ANT2405F001R0169A	169
			12*4*1.6	ANT1204F002R0433A	315/433
			12*4*1.5	ANT1204LL20R0433A	315/433
12*4*1.6			ANT1204LL08R0870A	870/915	
12*4*1.6			ANT1204F007R0870A	870/915	
25*25*4			ANT2525B00FT2300S	2320 - 2345	
Filter	GPS/2.4/5 GHz	1.6*0.8*0.6	DPX1608LL87R1524A	1570-1610	
				2400 - 2500	
				4900-6000	
	2.4 GHz	2.0*1.25*0.9	1.6*0.8*0.6	BLF2012LL98R2400A	2400 - 2500
				BLN1608LL30R2400A	2400 - 2500
				BPF1608LM02R2400A	2400 - 2500
				LPF1005LL50R2400A	2400 - 2500
				LPF1608LL53R2400A	2400 - 2500
	2.4/5 GHz	1.6*0.8*0.6	1.6*0.8*0.6	DPX1608LL80R2455A	2400 - 2500
				DPX1608LL85R2455A	4900-6000
		2.0*1.25*0.5	2.0*1.25*0.5	DPX2012LL75R2455A	2400 - 2500 4900-5950





Wireless components Sample Books

Sample Books

M2M Application : Antenna, Ordering code ANT5B00000020150					
Product	Series	Dimension (mm)	PART NUMBER	Frequency Range (MHz)	
Antenna	2.4GHz	8*1*1	ANT8010LL04R2400A	2400 - 2500	
		3*1.5*0.5	ANT3216A073R2400A	2400 - 2500	
		3.2*1.6*1.2	ANT3216LL00R2400A	2400 - 2500	
		2*1.2*1	ANT2012LL13R2400A	2400 - 2500	
		1.6*0.8*0.4	ANT1608LL14R2400A	2400 - 2500	
		30*5*0.15	ANTX100F113B24003	2400 - 2500	
	2.4/5 GHz	5.3*2*1.1	3*1.5*0.5	ANT5320LL24R2455A	2400 - 2500 5150 - 5875
				ANT3216A073R2455A	2400 - 2500 5150 - 5875
		1.6*0.8*0.4	40*6*0.15	ANT1608LL14R2455A	2400 - 2500 5150 - 5875
				ANTX100F112B24553	2400 - 2500 5150 - 5875
		GPS	8*1*1	ANT8010LL05R1575A	1575
	5.3*2*1.2		ANT5320LL14R1575A	1575	
	3.2*1.6*1.2		ANT3216LL15R1575A	1575	
	12*12*4		ANT1212B00DT1575S	1575	
	15*15*4		ANT1515B00FT1575S	1575	
	18*18*2		ANT1818B00AT1575S	1575	
	GNSS	25*25*4	ANT2525B00FTGNSSS	1559 - 1610	
	GPS& GLONASS	5.3*2*1.2	ANT5320LL14R1516A	1575 / 1602	
		8*1*1	ANT8010LL05R1516A	1575 / 1602	
		18*18*4	ANT1818B00BT1516S	1575 / 1602	
		25*25*4	ANT2525B00DT1516S	1575 / 1602	
	2.4GHz + GPS	5.3*2*1.2	ANT5320LL17R1524A	1575 / 2400	
	Cellular WWAN	21*12*0.9	12*4*1.2	ANT2112LL00B0918A	880 - 960 1710 - 1880
				ANT1204LL00R0918A	900 / 1800
		35*5*6	50*20*0.95	ANT3505B002TWPENS	824 - 960 1710 - 2170
				ANTX100P001BWPEN3	824 - 960 1710 - 2170
		40*5*6	24*0.5*1.6	ANT4005B000RWHXS	698 - 960 1710 - 2690
				ANT2405F001R0169A	169
	Short-Range	12*4*1.6	ANT1204F002R0433A	315/433	
		12*4*1.5	ANT1204LL20R0433A	315/433	
		12*4*1.6	ANT1204LL08R0870A	870/915	
		12*4*1.6	ANT1204F007R0870A	870/915	
		SDARS	25*25*4	ANT2525B00FT2300S	2320 - 2345
Filter	GPS/2.4/5 GHz	1.6*0.8*0.6	DPX1608LL87R1524A	1570-1610	
				2400 - 2500	
				4900-6000	
	2.4 GHz	2.0*1.25*0.9	1.6*0.8*0.6	BLF2012LL98R2400A	2400 - 2500
				BLN1608LL30R2400A	2400 - 2500
		1.0*0.5*0.35	1.6*0.8*0.65	BPF1608LM02R2400A	2400 - 2500
				LPF1005LL50R2400A	2400 - 2500
				LPF1608LL53R2400A	2400 - 2500
	2.4/5 GHz	1.6*0.8*0.6	2.0*1.25*0.5	DPX1608LL80R2455A	2400 - 2500
				DPX1608LL85R2455A	4900-6000
				DPX2012LL75R2455A	2400 - 2500 4900-5950

