



ANTENNA PRODUCTS



ANTENNA SOLUTIONS

Chip Antenna

NFC Antenna

FPA Antenna

Metal Antenna

PCB Antenna

Patch Antenna

Stub Antenna

Dipole Antenna

Helix Antenna

Ceiling Mount Antenna

Wall Mount Antenna



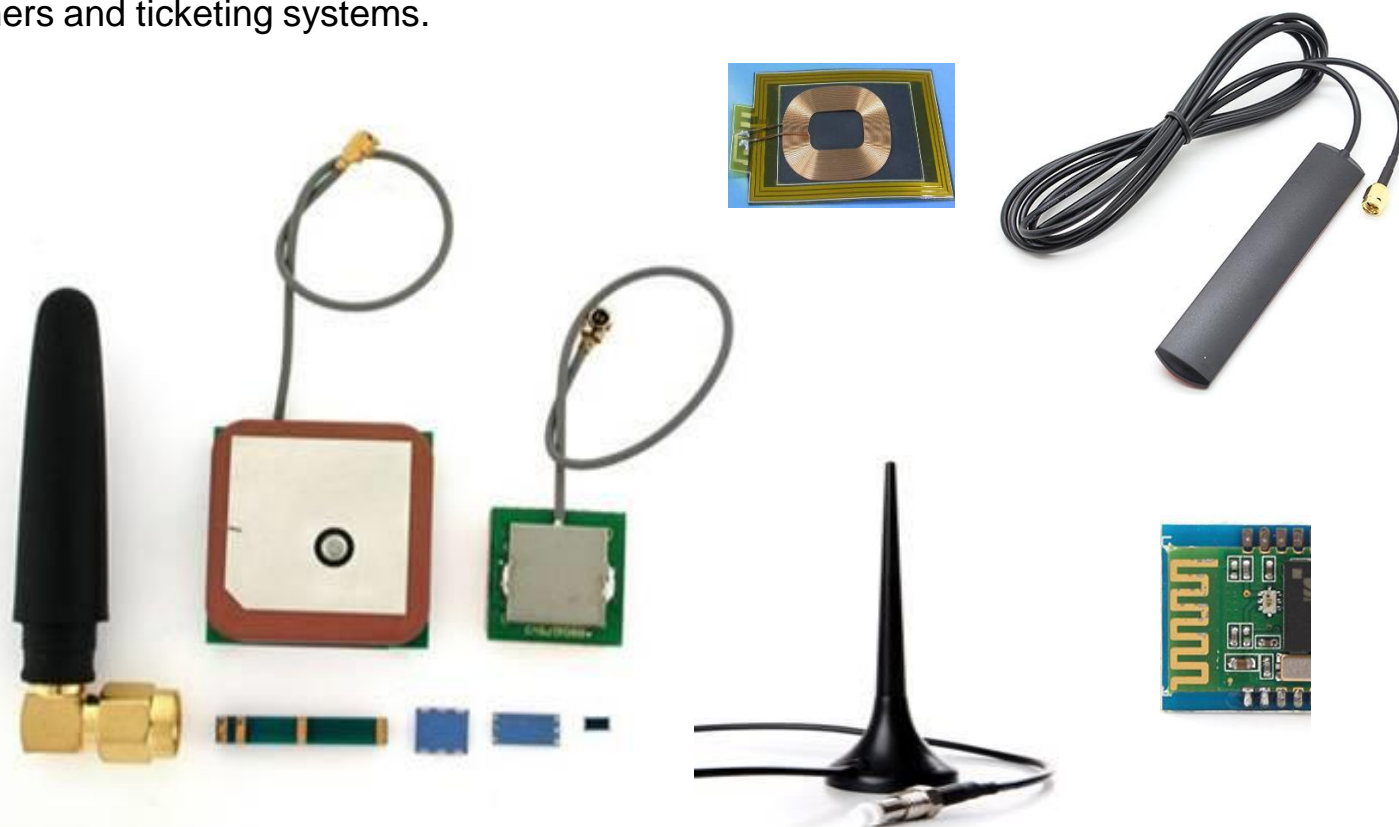
Raltron Antenna Solutions

Raltron is offering a wide selection of antennas ranging in frequency from 433 MHz to 5.9 GHz. Raltron has Chip, NFC, FPA, Metal, PCB, Patch, Stub, Dipole, Helix, Ceiling and Wall Mount solutions. Applications include Bluetooth, Wi-Fi, ZigBee, Lora, Sigfox, GPS / GLONASS / BeiDou, automotive navigation, cell phones, wireless and RFID systems.

Raltron offers GPS Patch antennas in three different configurations – passive patch, active external patch, and active internal patch; they vary in sizes from 9 x 9 mm to 49 x 39 mm. Additionally we offer dual band GPS/GLONASS passive patch antennas in 13 x 13 mm, 25 x 25 mm and 49 x 39 mm dimensions.

Raltron's chip antennas can operate in the 1.575 GHz Band, 2.5 to 3.8 GHz (WiMAX Frequencies) and either single or dual bands for 2.400 to 2.485 GHz and/or 4.9 to 5.9 GHz (Bluetooth/Wi-Fi) . The small size of these chip antennas from 3.2 x 1.6 mm to 10.0 x 3.2 mm, along with omni-directional radiation patterns and peak gain to 4 dBi, offers the best conversions from cost, size and performance stand point.

The ultra-thin flexible antenna structure of our NFC series allows for peel and stick antenna designs for a variety of applications such as NFC payment readers, health care ID scanners and ticketing systems.

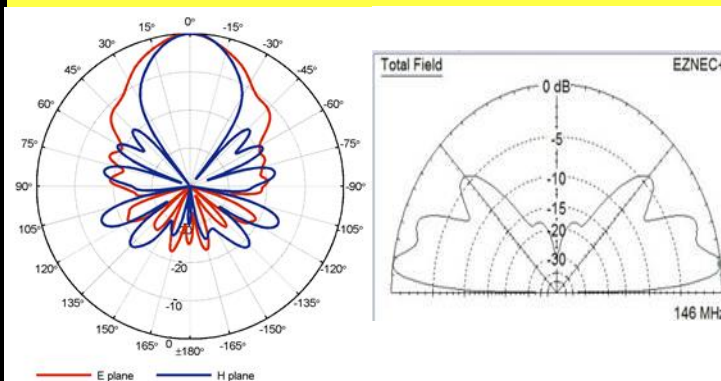
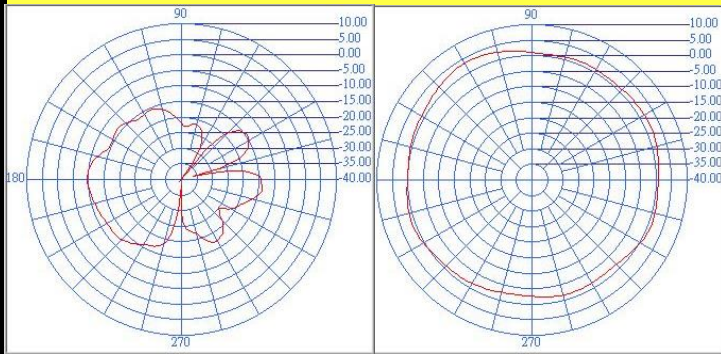


DESIGN OPTIMIZATION

Raltron can provide design optimization in our state of the art testing center. We will extensively test and evaluate the circuit and antenna combination to characterize the performance. We will recommend changes required to maximum efficiency.

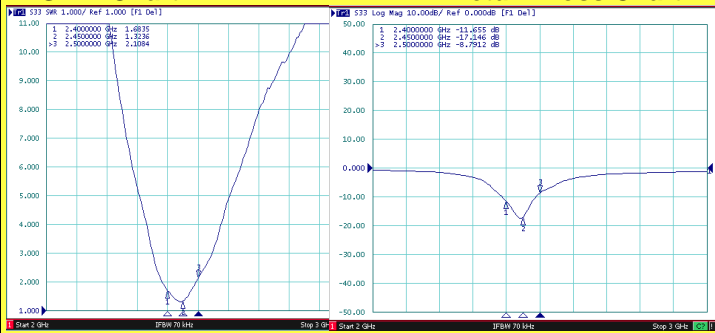
Test Measurements

Typical Radiation Charts

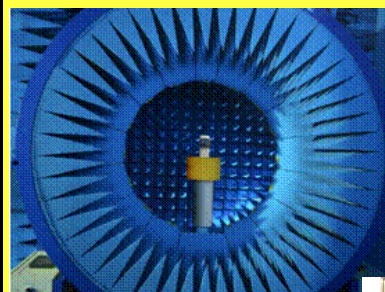


VSWR Chart

Return Loss Chart



Testing Facility



Star Lab Test Chamber

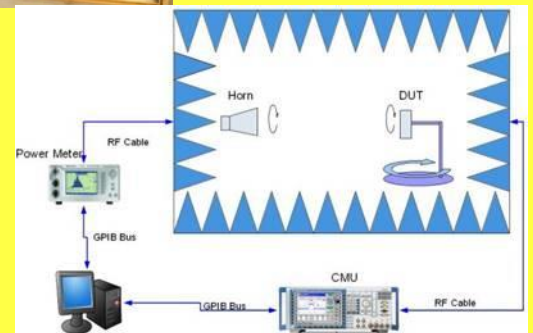
Test Chamber



Turn Table

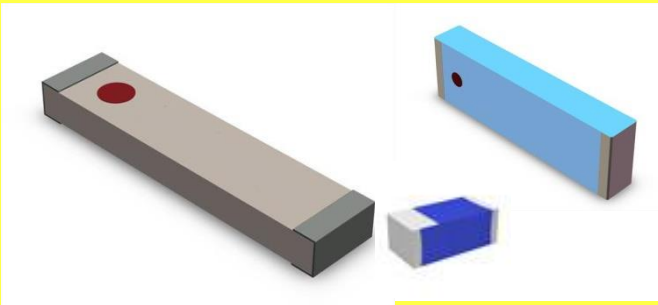


Set-up



Chip Antenna

- RCA series of Chip Antennas
- Small form Factor Ceramic Chips
- Excellent Thermal Stability
- Made using Low Temperature Co-fired Ceramic (LTCC) technology which provides the ability to embed low and high dielectric constants inside the antenna
- Available in sizes from 3.2 x 1.6 to 10 x 3.2 mm
- Frequency single band: 1.575 GHz, 2.4~2.5 GHz, 2.5~2.69 GHz, 3.3~3.8 GHz
- Frequency dual band: 2.4~2.5/4.9~5.9 GHz
- Applications: Bluetooth, Zigbee, ISM, WLAN



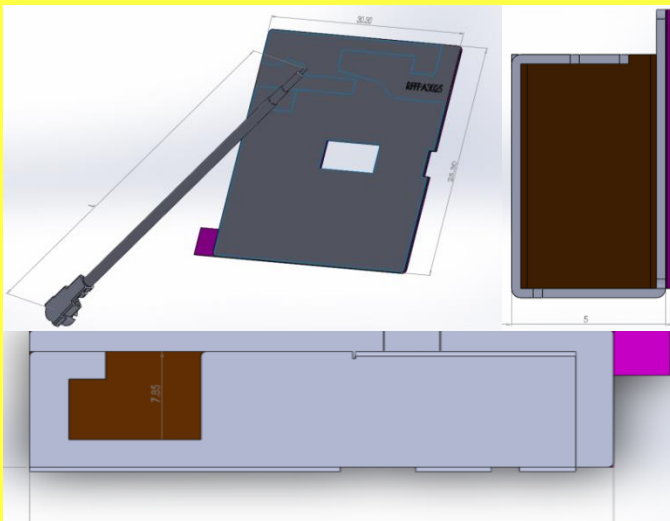
NFC Antenna

- RNF series of Near Field Communication Antennas
- Ferrite loaded antenna which can be mounted directly on top of metals and batteries without loss of performance
- Adhesive mount
- Frequency: 13.56 MHz or 915 MHz
- Available size: ~ 2.0 x 1.2 mm
- Applications: Lock Access, Payment Systems, RFID Tags (reader/writer), Pairing, Data Communication, Security, Transit Access Systems, Contactless Smart cards, Smart phones, Vehicle Entry Locks, High Data Rate Transfers



FPA and Metal Antenna

- RMA series of Metal Antennas and RFA FPA Antennas
- Frequencies: 2.4 ~ 2.5 GHz
- Available size: Custom design for application
- Applications: Wi-Fi



PCB Antenna

- RPC series of Printed Circuit Board Antennas
- Frequencies: 13.56 MHz, 915 MHz, 2.4 GHz
- Available size: Available for custom design
- Applications: RFID, Rectenna



Patch Antenna - Interior

- RPA series of Patch Antennas
- Internal
- Passive or Active (LNA – Low Noise Amplifier)
- Custom Cable and Terminations per customer requirements
- Frequencies: RFID – 915 MHz
GPS – 1.575 GHz,
GLONASS – 1.602 GHz
BDS(BeiDou) – 1.561 GHz
- Single or Dual Band
- Available Packages: 9 mm sq. to 25 mm sq.;
49 mm x 39 mm



Patch Antenna - Exterior

- RPA series of Patch Antennas
- Exterior
- Passive or Active (LNA – Low Noise Amplifier)
- Custom Cable and Terminations per customer requirements
- Frequencies: RFID – 915 MHz
GPS – 1.575 GHz,
GLONASS – 1.602 GHz
BDS(BeiDou) – 1.561 GHz
- Single or Dual Band
- Available Packages: 25 mm sq. to 49 mm x 39 mm



Stub Antenna

- RST series of Stub Antenna (Dipoles)
- Straight or Right Angle
- Connector or Cable Terminations (per customer requirements)
- Frequencies: VHF 150~230 MHz
UHF 350~400 MHz
RFID 890~960 MHz
GPRS 900/1800 MHz
Wi-Fi 2.4-25 GHz / 5 GHz
GSM (single or 5 band)
- Inside or Outside (Magnetic Mount or Adhesive)
- Applications: Wi-Fi, LTE, Bluetooth, ZigBee



Dipole Antenna

- RST series of Dipole Antenna (Stubs)
- Straight (Whip)
- Connector or Cable Terminations (per customer requirements)
- Frequencies: VHF 150~230 MHz
UHF 350~400 MHz
RFID 890~960 MHz
GPRS 900/1800 MHz
Wi-Fi 2.4-2.5 GHz / 5 GHz
GSM (single or 5 band)
- Inside or Outside (Magnetic Mount or Adhesive)
- Applications: Wi-Fi, LTE, Bluetooth, ZigBee



Helix Antenna

- RLX series of Helix Antennas
- Interior or Exterior
- Passive or Active (LNA – Low Noise Amplifier)
- Custom Cable and Terminations per customer requirements
- Frequencies: GPS – 1.575 GHz, 1.227 GHz
GLONASS – 1.602 GHz, 1246 GHz
BDS(BeiDou) – 1.561 GHz
- Single or Dual Band
- Available Packages: 48 mm x Ø18.5mm
52.2 mm x Ø36 mm
57 mm x Ø25 mm



Ceiling and Wall Mount Antenna

- RMT series of Ceiling and Wall Mount Antennas
- Connector or Cable Terminations (per customer requirements)
- Frequencies: RFID 890~960 MHz
GPRS 900/1800 MHz
Wi-Fi 2.4-25 GHz / 5 GHz
GSM (single or 5 band)
- Applications: RFID, Wi-Fi, LTE, Bluetooth, ZigBee



Cables

- RCA series of Cable Assemblies
- Cable sizes: RG-178, RG-316, RG-179,
SS-402, SS-405,
Φ1.32, Φ1.13, Φ1.37, Φ0.18
- Custom cable configurations available based on customer requirements



Connector / Adaptor

- RCN series of Connectors
- Bulk Head Mount, PC Mount or Cable
- SMA, MCX, MMCX, IPEX, BNC, FAKRA®
- Adaptors available – SMA to BNC, N to SMA, N to BNC, SMA to MCX, MMCX to SMA



Applications



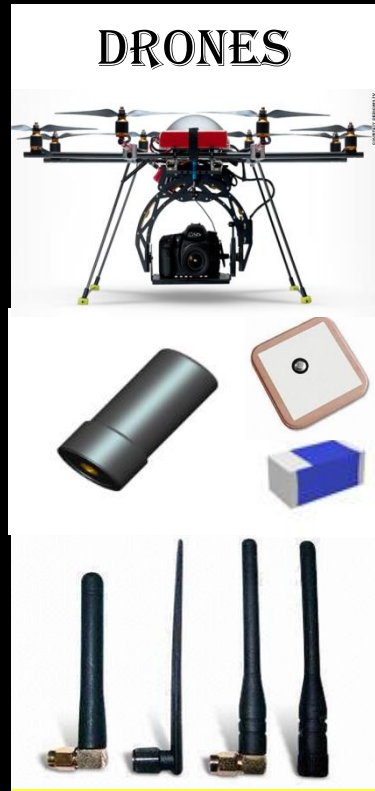
Applications



Applications



Applications



Applications



Applications



Applications



Applications



RAMI TECHNOLOGY GROUP

RALTRON ELECTRONICS is a member of the RAMI TECHNOLOGY GROUP

With worldwide operations and controlled from its main business center in Miami, Florida, RAMI TECHNOLOGY GROUP is one of the fastest growing manufacturers of frequency components. The company offers one of the broadest lines of quartz crystals and crystal based products from simple resonators to precision oscillators, such as VCXO, TCXO and OCXO. The company has also recently introduced RF products such as LTCC Filters, Duplexers, Baluns, Band-Pass Filters. The group is also active in the RF wireless arena with our complete line of antenna products such as Chip Antennas Patch Antennas (both active and passive), Helix Antennas, Stub and Dipole Antennas. RAMI TECHNOLOGY is interacting with its customers worldwide through its sales offices, reps and distributors. Most sales personnel are veterans of the frequency component market, who share their experience with the customers. The company is offering full technical support with two application engineering teams and failure analysis labs based in Miami and Shenzhen (China). RAMI TECHNOLOGY GROUP is committed to excellence in its complete interaction with its customers, suppliers, employees and the communities where it is operating.

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