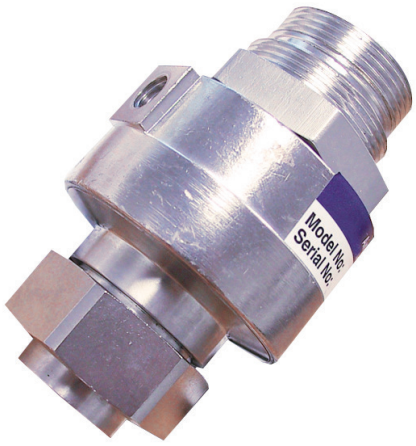
# MTL AirGuard QWS/GT range

## RF surge protection for coaxial applications

- **Multi application and maintenance free**
- **Low passive intermodulation (PIM)**
- **Weatherproof and corrision resistant**
- **120kA surge current rated**
- **.82 to 2.2GHz**
- **No discrete components to fail**
- **Passes dc current**




The QWS/GT range (Wideband Quarterwave Tubeless Stub) of surge protection devices prevent surges and transient overvoltages. The QWS/GT range uses an innovative "tubeless" design to achieve W-I-D-E-B-A-N-D performance. This compact unit has a high transient current capability with extremely low Passive Intermodulation (PIM).

Typical applications for the QWS/GT range include the protection of cellular, PCS and even 3G frequencies. It is also ideal as a single stock item device that can be used in any system up to 2,200MHz with outstanding performance.

Receivers and transmitters are particularly vulnerable to damage from the effects of lightning. Their remote locations (height above ground) and physical construction make them vulnerable to lightning activity. The use of semiconductors and integrated circuits in transmitters and receivers has rendered them particularly prone to damage from these disturbances.

Excellent performance levels are achieved using a tuned cavity and no discrete components to offer extremely high surge current capability in a rugged, economic, compact enclosure to produce superior surge suppression.

The AirGuard range provides a wide range of connector types including BNC, TNC, N-type, SMA and UHF to suit all application requirements. In addition, bulkhead mounting options are provided where insertion into a panel is preferable. The GT and RGT range are available with a wide choice of voltages: 90V, 145V, 230V, 350V, 470V 600V, 800V or 1,000V.

Complete facility/site protection can be achieved by using our wide range of AC and DC power surge protection devices to prevent surges entering equipment via their power supply. The MTL ZoneMaster range of protectors combine a high level of protection and when used in conjunction with the MTL ZoneBarrier data protection modules, provide the highest level of site protection available.

Powering Business Worldwide

**Eaton Electric Limited,**
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com


Publication No. EPS 901-138 Rev D
October 2016

## SPECIFICATION

All figures typical at 77°F (25°C) unless otherwise stated.

**Maximum discharge current**

60kA (8/20µs), 10 times
30kA (10/350µs)

**Maximum power rating (VSWR)**
1.15:1

**Frequency Range**
0.82 to 2.2GHz

**Impedance**
50Ω

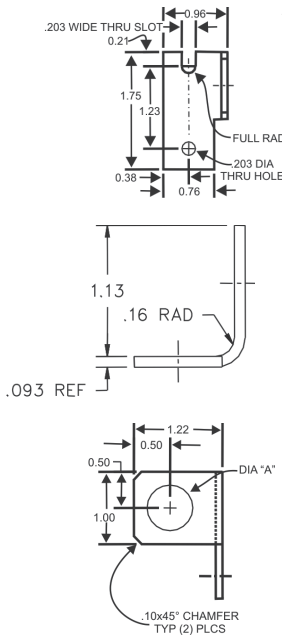
**RF power handling**
2kW rma/25kW peak

**Passes DC**
65Adc/15A maximum

**Low passive intermod**
(2 x 43dBm)
>- 150dB (3rd order)
>- 173dB (5th order)

**Brackets**

N, 7/16, BNC and TNC Connector Brackets




| Model | Connectors | Diameter |
|---|---|---|
| RF51074 | 7/16 DIN | 1.146" ( 2.91cm) |

**Specification table**

| Model | Mounting connector | Second connector | Impedance (Ω) |
|---|---|---|---|
| RF51081 | GPS & Preamp | N-Type | 2.4 |
| RF51083 | P-Com | N-Type | 2.4 |
| RF51084 | NEC | N-Type | 2.4 |
| RF51085 | Aperto | F-Type | 2.4 |
| RF51086 | NEC | N Bulkhead | 2.4 |

**Optimum performance frequencies**

| Frequency (GHz) | VSWR | Insertion loss (dB) | Protection level current |
|---|---|---|---|
| 0.82 to 2.2 | 1.05:1 to 1.15:1 | 0.05 to 1.10 | 120kA |

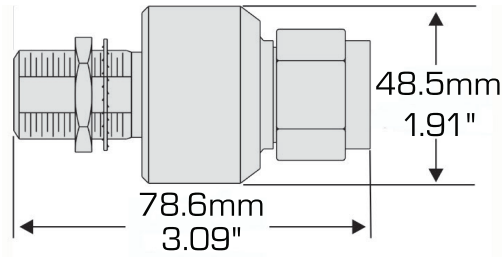
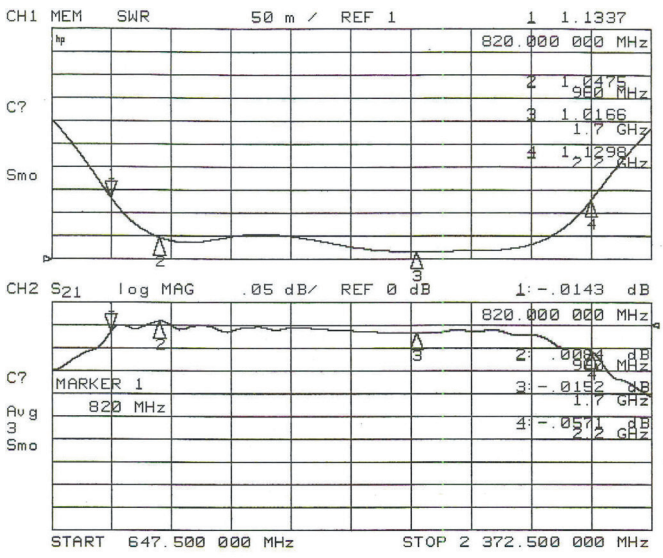



**Figure 1** - Dimensions (dimensions vary depending on type of connector)




Powering Business Worldwide

**Eaton Electric Limited,**
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com


Publication No. EPS 901-138 Rev D 251016
October 2016

**EUROPE (EMEA):**
+44 (0)1582 723633
mtlenquiry@eaton.com

**THE AMERICAS:**
+1 800 835 7075
mtl-us-info@eaton.com

**ASIA-PACIFIC:**
+65 6645 9864 / 6645 9865
sales.mtlsing@eaton.com