

# AirGuard NQWS Series

RF surge protection for coaxial applications

- **Multi application**
- **Low passive intermodulation (PIM)**
- **Weatherproof**
- **Up to 100kA of surge current capacity**
- **No discrete components to fail**
- **Models from 420MHz to 6GHz**
- **Nickel plated for corrosion resistance**



**The NQWS Series (Narrowband Quarterwave Tubeless Stub)** of surge protection devices prevent surges and transient overvoltages. The NQWS Series uses an innovative "tubeless" design to achieve the superior performance characteristics of a conventional quarterwave stub. This compact unit has a high transient current capability with extremely low Passive Intermodulation (PIM).

**Typical applications for the NQWS Series** include the protection of radio telemetry systems, mobile communications base stations and where high induced voltages may be present.

**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 Series 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 Series are available with a wide choice of voltages: 90V, 145V, 230V, 350V, 470V 600V, 800V or 1,000V.

**Complete site protection** can be achieved by using MTL Surge Technologies' wide range of AC and DC power surge protection devices to prevent surges entering equipment via their power supply. The ZoneMaster range

of protectors combine a high level of protection and when used in conjunction with the ZoneBarrier data protection modules, provide the highest level of site protection available.

**RF Coax  
Protection**

# Specification

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

**Maximum discharge current**  
60 - 100kA (8/20µs)

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

**Frequency Range**  
410MHz to 6GHz

**Peak Pulse Current (8/20µs)**  
60kA - 120kA

**Impedance**  
50 Ω

**RF Power**  
.5kW average  
5kW peak

**Typical let-through voltage**  
10V pk/10µJ @ 20kA 8/20µs

**Return loss**  
-26.4dB

**Passive intermod**  
-150dBc PIM

**Weight**  
0.3lb/140g

**Environmental**  
IP67  
-40°F to +194°F (-40°C to +90°C)

Model	Mounting Connectors	Second Connector	VSWR	Insertion Loss (dB)	Impedance (Ω)	Surge Current
RF51033*	N Bulkhead Female	N Female	1.1:1 to 1.15:1	0.1 to 0.15	50	60kA
RF51034*	N Bulkhead Female	N Male	1.1:1 to 1.15:1	0.1 to 0.15	50	60kA
RF51035*	7/16 Bulkhead Female	7/16 Female	1.1:1 to 1.15:1	0.1 to 0.15	50	100kA
RF51036*	7/16 Bulkhead Female	7/16 Male	1.1:1 to 1.15:1	0.1 to 0.15	50	100kA

250 piece minimum for RF51035\*, RF51036\*, RF51037 & RF51038

**Note:** Select frequency code from table below. The RF51035 & RF51036 are available only in frequency codes A, B, C, F & I.

## Bandwidth Frequency

Code	A	B	C	E	F	G	I	H
<b>Frequency</b>	.411-.494	.82-.96	1.7-2.0	2.2-2.6	3.0-3.6	5.15-5.88	.82-2.2	2.4-6.0
<b>Loss</b>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
<b>VSWR</b>	1.1	1.1	1.1	1.1	1.1	1.1	1.15	1.15

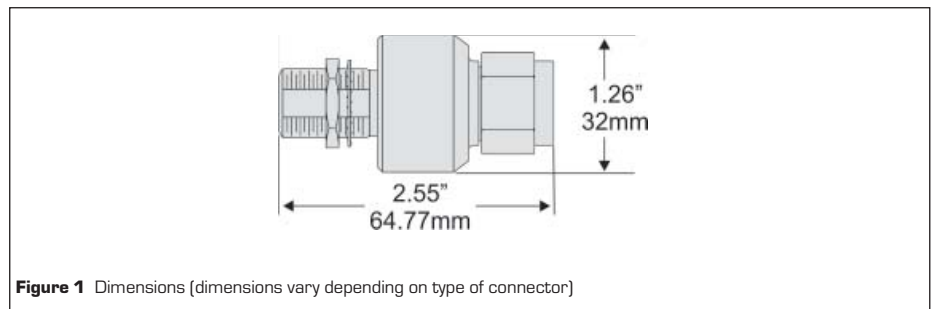
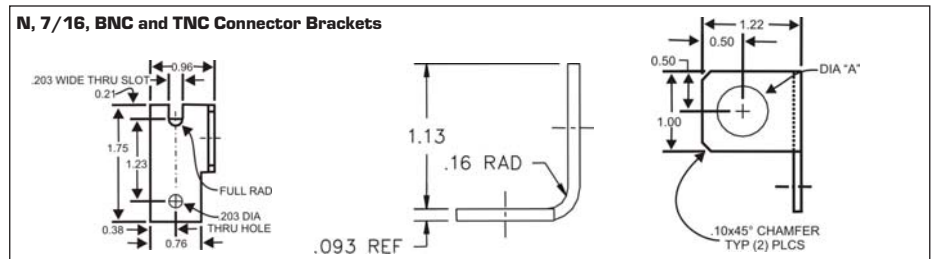


Figure 1 Dimensions (dimensions vary depending on type of connector)

## Brackets

Model	Connectors	Diameter
RF51074	7/16 DIN	1.146" (2.91cm)
RF51075	N	0.630" (1.6cm)



Note: In accordance with our policy of continuous improvement, we reserve the right to change the product's specification without notice.

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