

## N to N Quarter Wave Stub Lightning Protector 2.2GHz to 7.6GHz



- ✓ Ideal for 802.11, UNII, ISM, Satellite, and LTE Applications
- ✓ Low VSWR and Insertion Loss
- ✓ 60kA Surge Protection
- ✓ DC Block Design
- ✓ Normal and Reverse Polarity
- ✓ Bi-directional Protection
- ✓ Rugged and Weatherproof

### RF Specifications

Frequency (GHz)	VSWR typ / max	Insertion Loss (dB) typ / max
2.2 – 7.6	1.10 / 1.20	0.15 / 0.25

Nominal Impedance 50Ω

Return Loss (dB typ/min): 26.4/20.8

RF Power: 0.5kW<sub>avg</sub> / 4kW<sub>pk</sub>

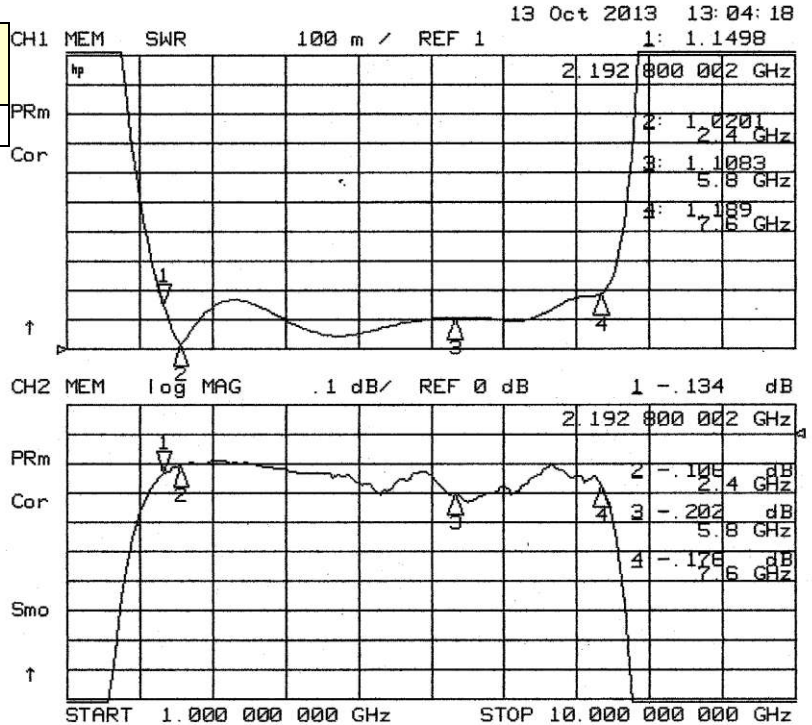
### Transient Specifications

(1.2X50μs Voltage / 8X20μs Current waveform)

Maximum Transient: 60 kA<sub>pk</sub>

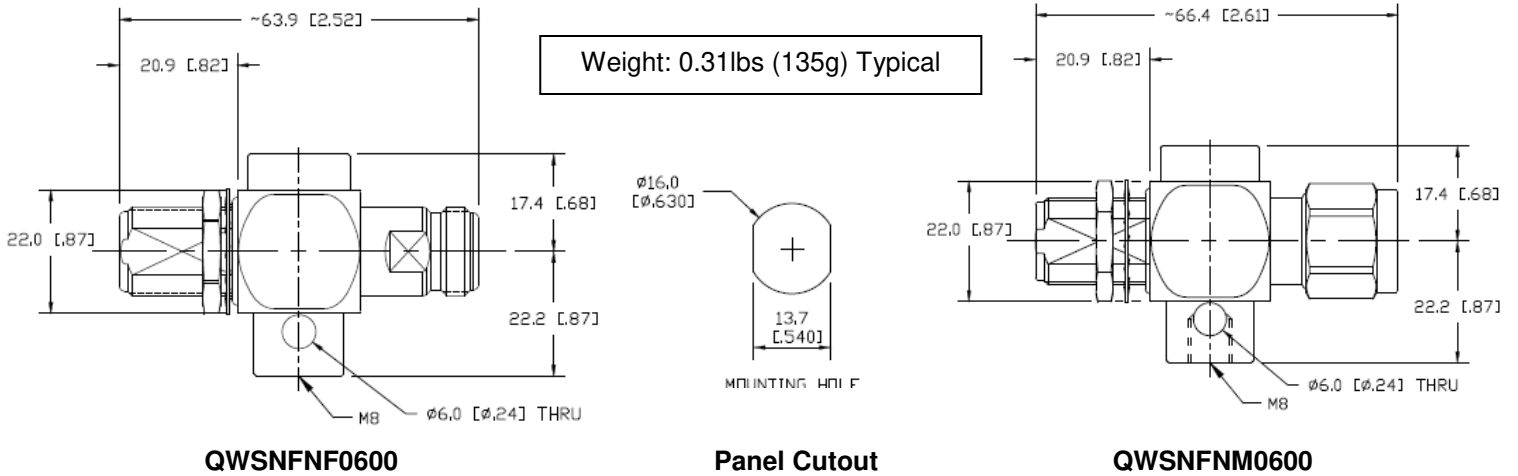
Let Through (V<sub>peak</sub>/μJ): 3Vpk/500nJ typical  
Input: 6kV/3kA Output: into 50Ω

Excellent Protection against Lightning, ESD, and all types of EMP Energy.



### Mechanical Specifications

Mounting/Grounding:  $\phi$ .625 (15.9) [.25 (6.3) Panel Max] bulkhead mount with environmental gasket, or M8 Ground Boss. Grounding can also be via a bracket, wire lug, or bare wire through  $\phi$ 6.0mm hole



### Material and Finish

Component	Material	Finish
Outer Parts	Brass	Nickel
Center Conductor	BeCu	Gold
Insulator	PTFE	-
Gasket	Si Rubber	-

### Environmental Specifications

Temperature Range	-40°C to +90°C
Temperature Shock	MIL-STD-202 Method 107D / Condition B-1 (25 cycles -65°C to +125°C)
Dust / Waterproof Rating	IEC529 IP68 (dust-tight and water proof 24 hrs / 1 m)
Moisture Resistance	MIL-STD-202 Method 106E (65°C/98% RH condensing/240 hrs)
Salt Fog	MIL-STD-202 Method 101D/Condition B (35°C/96 hrs)
Vibration	MIL-STD-202 Method 204D / Condition D (10Hz-2kHz 0.06"DA/20g)
Mechanical Shock	MIL-STD-202 Method 213 / Condition A (50g/11ms ~24")
Immersion	MIL-STD-202 Method 104A / Condition A (65°C to 25°C w/NaCl – 2 cycles)

### Part Number

**QWS NFNx 06 00**

- QWS Family (Quarter Wave Stub)
- Connector Code (NFNF=Female/Female, NFNM=Female/Male)
- Frequency Code (06 = 2.2GHz - 7.6GHz)
- Specifies design features shown here