

Key Features - Flux BiasT

- Main application: Flux-biasing of superconducting qubits
- Highly linear and first-order transfer function
- 10 kHz to 2 GHz frequency range for RF
- Low-pass filter for DC with 10 Hz cutoff and 60 dB of suppression up to 1 GHz
- Precision 1 k Ω^* (± 5 ppm/ $^{\circ}$ C) bias resistor for DC path
- *Contact YQuantum for different bias resistance values
- Low insertion- and high return-loss



*BiasT Aluminum casing
Mounting holes on backside*

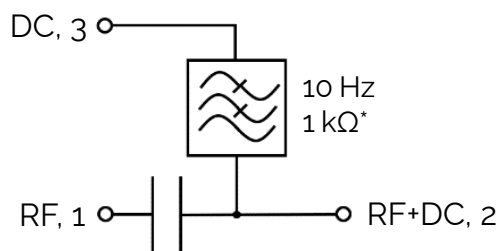
Absolute Maximum Ratings

| | |
|-----------------------|------------------------|
| DC input voltage | +/-20 V |
| RF input power | +32 dBm |
| Operating temperature | -55 to 85 $^{\circ}$ C |

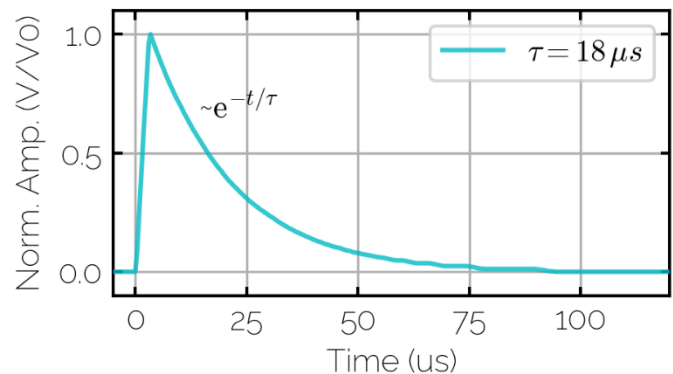
Typical Performance

| | |
|----------------|----------------|
| RF frequency | 10 kHz - 2 GHz |
| Insertion loss | < 1.0 dB |
| Return loss | > 16.0 dB |

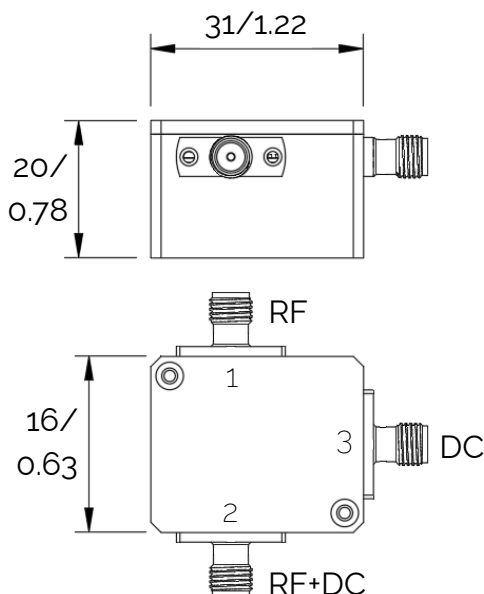
Circuit Schematic



Step Response into 50 Ω



Drawing Casing [mm/in]



Scattering-Parameters

