



Digital Programmable Step Attenuator

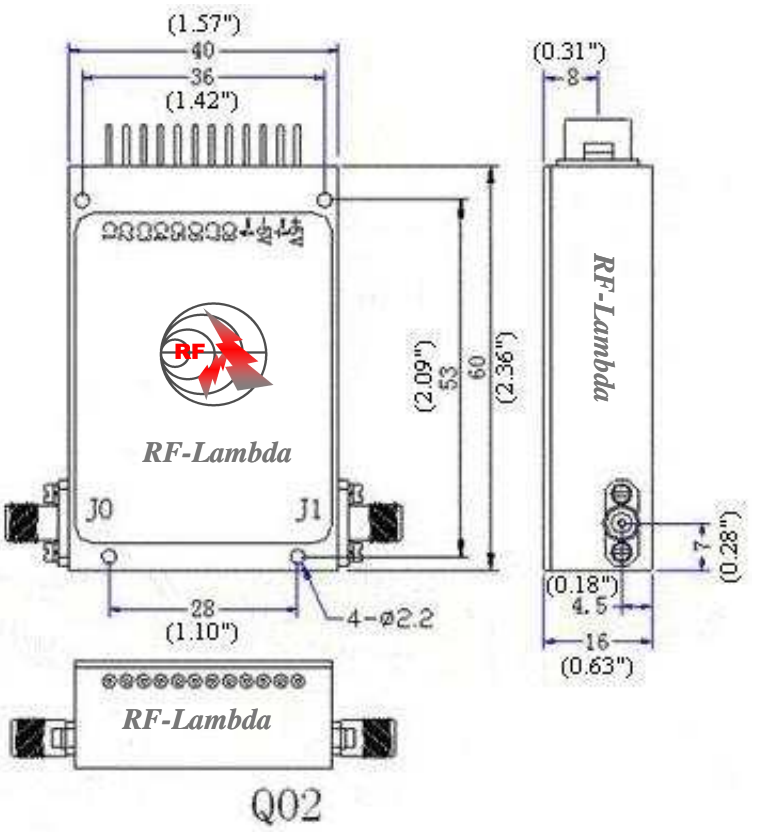
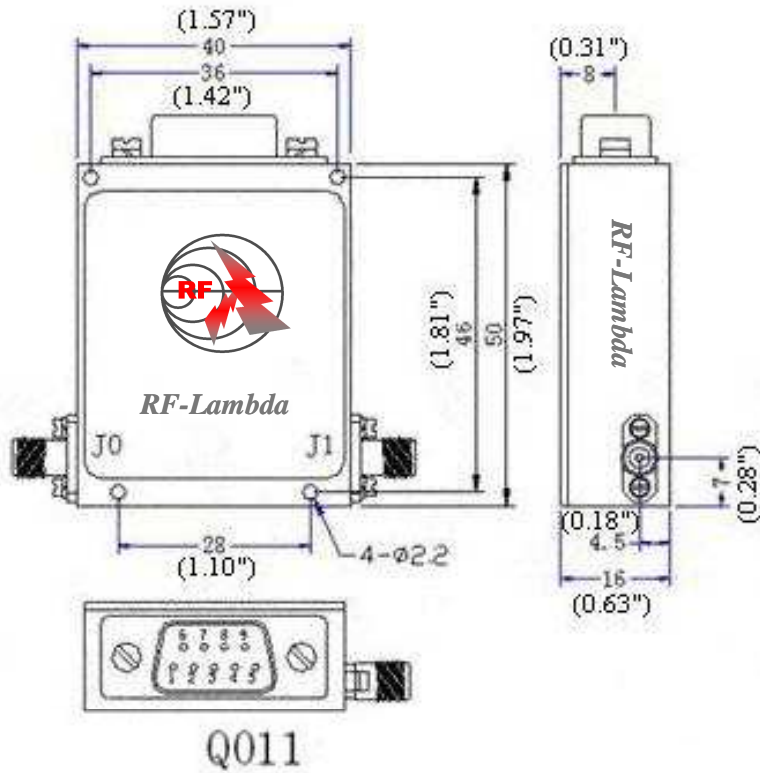
RF-LAMBDA'S line of switched-bit pin-diode digital attenuators offers precision, reliability, and repeatability for the most demanding applications. The RFDATXXXXG6X series digital attenuators are available in convenient binary 4-bit, 5-bit, and 6-bit configurations with 0.5dB resolution and up to 63dB total attenuation. The attenuators require $\pm 5V$ DC power supply and feature TTL-compatible control logic. Standard screened devices incorporate epoxy sealed lids and undergo a stringent yet cost effective screening cycle. The switches are also available with a high-reel option featuring MIL-STD-883 screening.

Applications

- Wide band and ultra-wide band unit.
- Applicable for base station, repeaters of cellular network
- Broadcasting multi-carrier operation
- High Peak to average handle capability
- High Linearity
- **Power handle from mW up to 100W CW**



| Electrical Specifications | | | | | | | | | |
|---|-----------------|-------|------------|----------------------|---------------|---------------|------------|-------------------------|-----------|
| Absorptive Digital Step Controllable Attenuator | | | | | | | | | |
| Part Number | Frequency (GHz) | Type | VSWR (max) | Total Attention (dB) | Flatness (dB) | Accuracy (dB) | Speed (ns) | Insertion Loss (dB max) | |
| RFDAT0204G6A | 2.0~4.0 | 6-BIT | 1.5 | 63 | ± 0.5 | ± 1.0 | 50 | 4.5 | |
| RFDAT0408G6A | 4.0~8.0 | 6-BIT | 1.5 | 63 | ± 0.5 | -0.5~1.5 | 50 | 4.5 | |
| RFDAT0812G6A | 8.0~12.0 | 6-BIT | 1.6 | 63 | ± 1.0 | -0.5~1.5 | 50 | 4.5 | |
| Reflective Digital Step Controllable Attenuator | | | | | | | | | |
| Part Number | Frequency (GHz) | Type | VSWR (max) | Total Attention (dB) | Flatness (dB) | Accuracy (dB) | Speed (us) | Insertion Loss (dB max) | Bandwidth |
| RFDAT0204G6R | 2.0~4.0 | 6-BIT | 1.5 | 63 | ± 0.5 | ± 1.0 | 1 | 1.8 | 20% |
| | | | | | | | | 1.8 | Full |
| RFDAT0408G6R | 4.0~8.0 | 6-BIT | 1.5 | 63 | ± 0.5 | -0.5~1.5 | 1 | 2.0 | 20% |
| | | | | | | | | 2.2 | Full |
| RFDAT0812G6R | 8.0~12.0 | 6-BIT | 1.6 | 63 | ± 0.5 | -0.5~1.5 | 1 | 2.2 | 20% |
| | | | | | | | | 2.5 | Full |
| RFDAT1218G6R | 12.0~18.0 | 6-BIT | 1.5 | 63 | ± 0.5 | ± 1.0 | 1 | 2.5 | 20% |
| | | | | | | | | 3.0 | Full |



| Electrical Notes | |
|--------------------------------------|----------------------------|
| Switching Speed | 200 nsec max |
| Attenuation Accuracy | ±0.4dB to 20dB Attenuation |
| | ±2% above 20dB Attenuation |
| Attenuation Accuracy | TTL Logic 0:=Low Loss |
| | TTL Logic 1:=Attenuation |
| DC Bias: +5.0±0.5V@ -5.0±0.5V@ | 160mA max.(4-bits) |
| | 200mA max(5-bits) |
| | 240mA max(6-bits) |

| Mechanical Specifications | |
|---------------------------|-------------------------------------|
| Case Style | Q011,Q02 |
| Connectors | SMA female per MIL-C39012 |
| Weight | |
| Finish | Gold plating per MIL-G-45204 |
| Bias and Control | 0.020" dia × 0.15" long solder pins |
| Mounting | 2.2mm dia through holes (4) pics |

