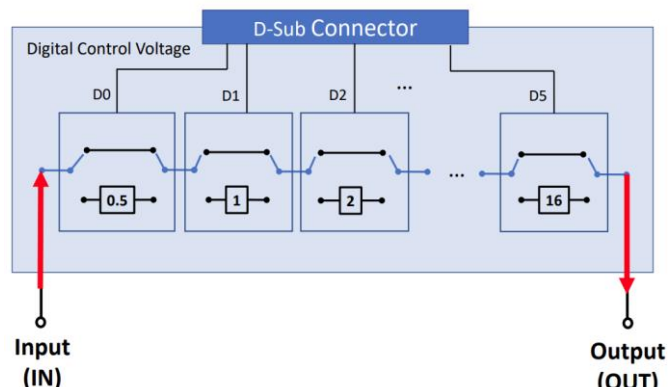


RoHS Compliant



Electrical Schematic

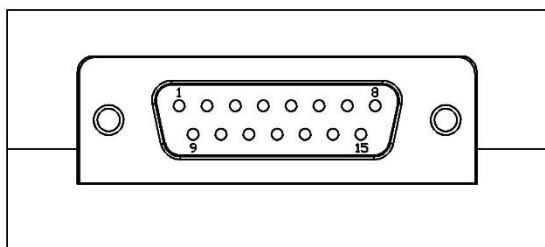
Electrical Specifications

| Parameter | Unit | Frequency (MHz) | Conditions | Min. | Typ. | Max. | |
|--|------|-----------------|------------------------------|---|------|------|------|
| Attenuation Range | dB | 10 - 30000 | | 0 | | 31.5 | |
| Step | dB | | | | 0.5 | | |
| Insertion Loss | dB | | @ 0 dB Att. | | 5.4 | 5.6 | |
| Attenuation Accuracy | dB | 10 - 12000 | @ 0.5 - 15 dB Att. | $\pm (0.2 + 1\% \text{ of State (max.)})$ | | | |
| | | 12000 - 30000 | @ 16 - 31.5 dB Att. | $\pm (0.2 + 3\% \text{ of State (max.)})$ | | | |
| | | 10 - 12000 | @ 0.5 - 15 dB Att. | $\pm (0.2 + 2\% \text{ of State (max.)})$ | | | |
| | | 12000 - 30000 | @ 16 - 31.5 dB Att. | $\pm (0.2 + 4\% \text{ of State (max.)})$ | | | |
| Input Operating Power (RF In and RF Out ports) | dBm | 10 - 30000 | | | | 27 | |
| IP3 Input | dBm | | | | 48 | | |
| VSWR | :1 | | @ 0 dB Atn. | Input | | 1.43 | 1.60 |
| | | | | Output | | 1.35 | |
| Switching Speed | us | | | 10% to 90% RF Output | | 1.3 | |
| | | | 50% Control to 90% RF Output | | 3.24 | | |

| | | | | | | |
|-----------------------------------|----|--|------|--------------|-----|--------------|
| Supply Voltage Range (V_{DD}) | V | | | 3.15 | | 3.45 |
| Control Voltage | V | | Low | -0.3 | | 0.3 |
| | | | High | $V_{DD}-0.3$ | | $V_{DD}+0.3$ |
| Digital Control Voltage Range | V | | | 0 | | $V_{DD}+0.3$ |
| Supply Current (I_{DD}) | mA | | | | 0.3 | |

Operated in 50Ω system, 25°C environment.

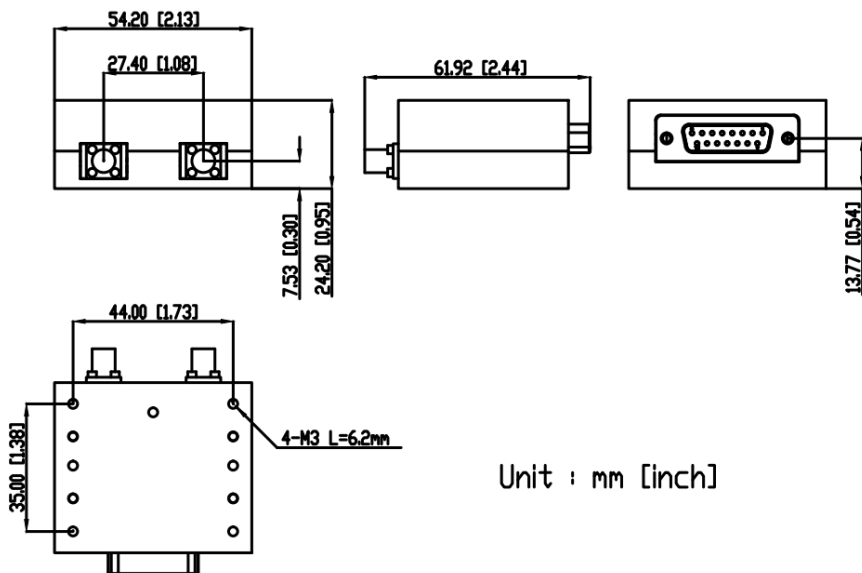
| Digital Control Input | | | | | | Attenuation State (dB) |
|-----------------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| D0 | D1 | D2 | D3 | D4 | D5 | |
| Low | Low | Low | Low | Low | Low | 0 (reference) |
| High | Low | Low | Low | Low | Low | 0.5 |
| Low | High | Low | Low | Low | Low | 1 |
| Low | Low | High | Low | Low | Low | 2 |
| Low | Low | Low | High | Low | Low | 4 |
| Low | Low | Low | Low | High | Low | 8 |
| Low | Low | Low | Low | Low | High | 16 |
| High | High | High | High | High | High | 31.5 |



Pin Number Functions

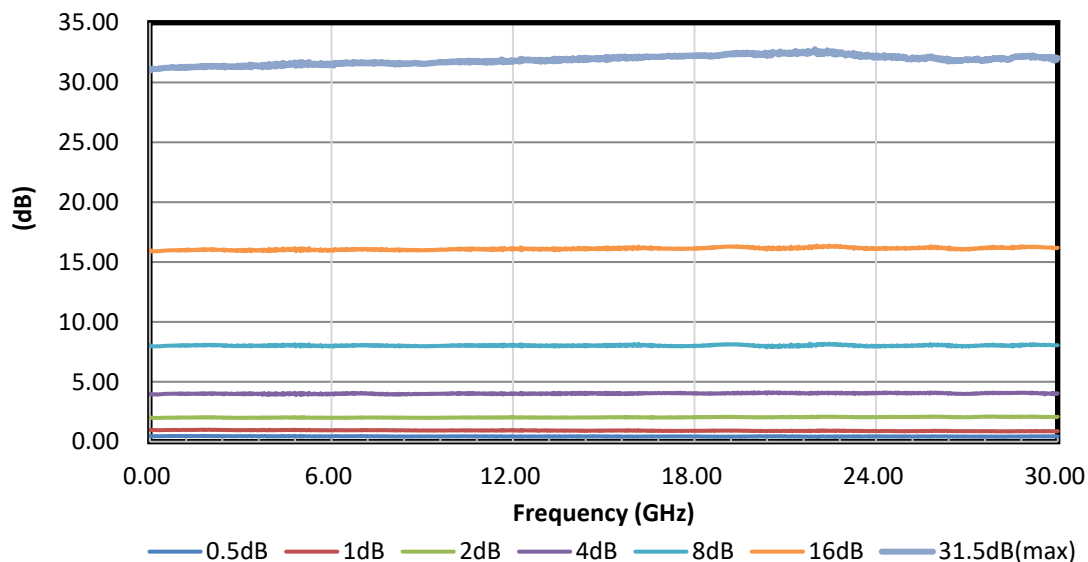
| | | | | | |
|--------------|-----|--------|----------|-----|-----|
| No. | 15 | 14 | 13 | 12 | 11 |
| Func. | N/C | D5 | D4 | D3 | D2 |
| No. | 10 | 9 | 8 | 7 | 6 |
| Func. | D1 | D0 | V_{DD} | N/C | N/C |
| No. | 5 | 4 | 3 | 2 | 1 |
| Func. | N/C | PS(0V) | GND | N/C | N/C |

Outline Drawing

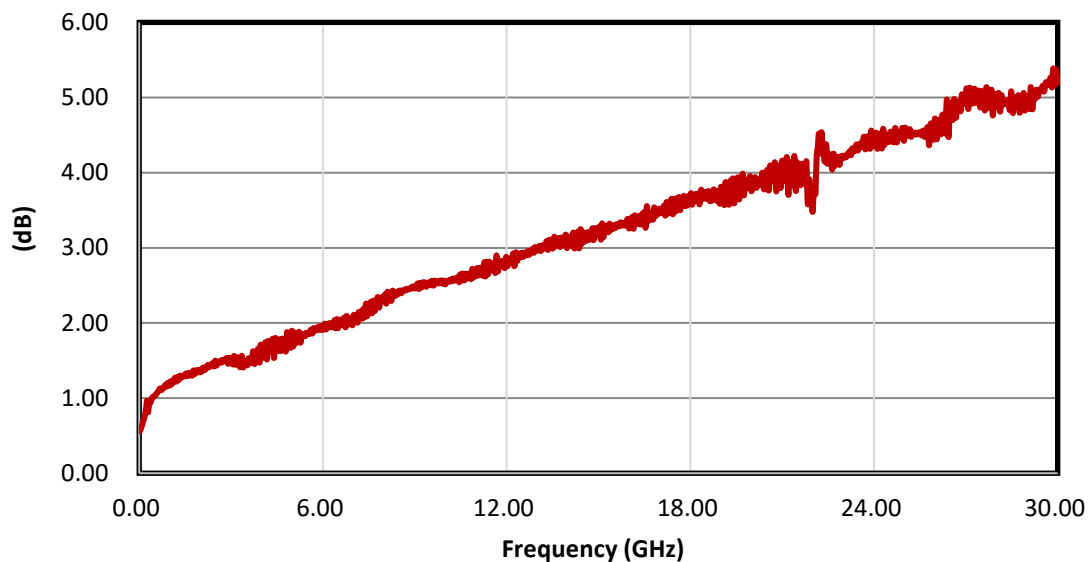


Connectors: 2.92mm Female, D-Sub Male

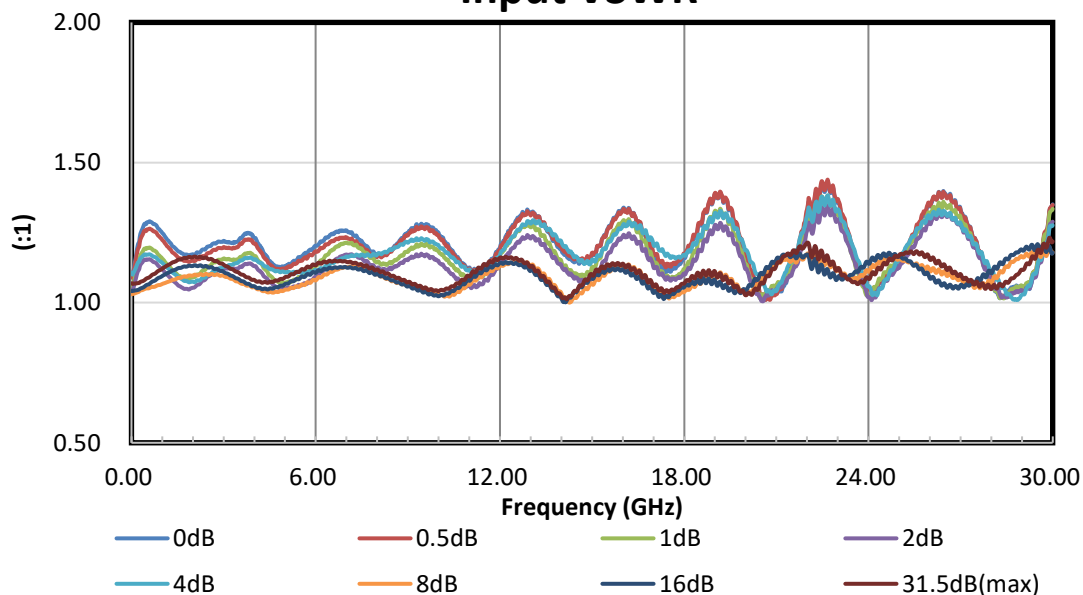
Attenuation Relative to Insertion Loss



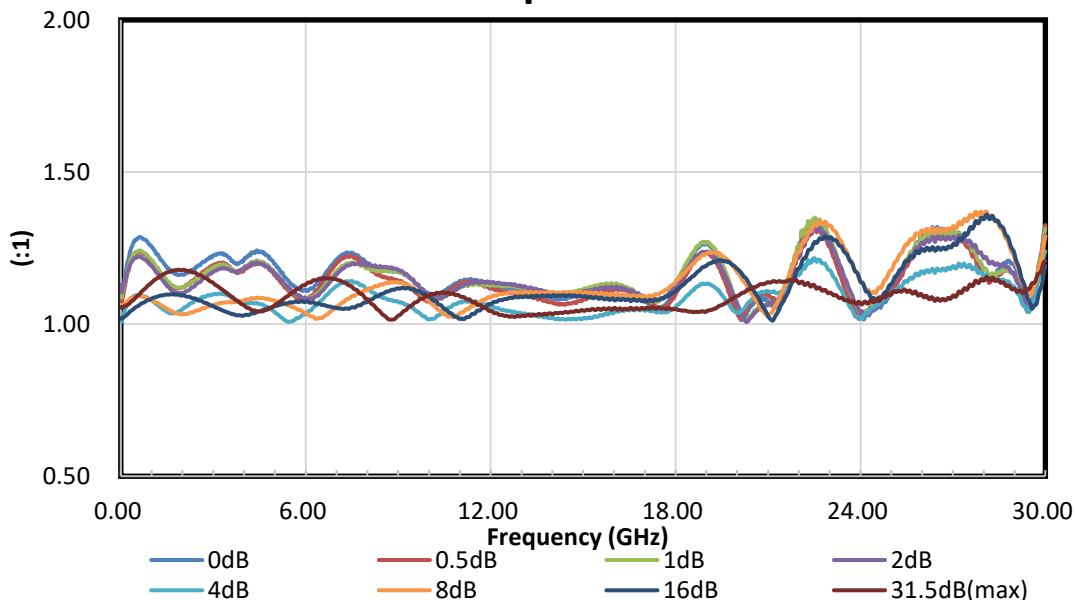
Insertion Loss



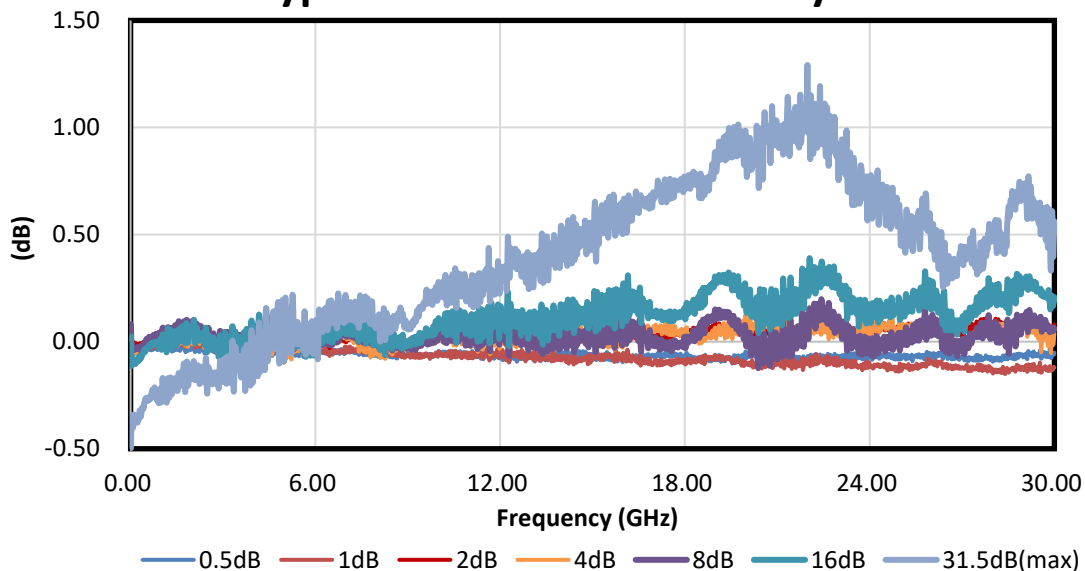
Input VSWR



Output VSWR



Typical Attenuation Accuracy



Typical performance S-parameter file: <https://www.amtery.com/en/goods-86>

For each S/N S-parameter file, go to <https://www.amtery.com/en/downloads>

Note: Specifications are subject to change without notice.