

## QAFS-1250-20000-MS

### 1.25~20GHz

Features:  
 \* High Frequency Stability  
 \* Ultra Low Phase Noise

Applications:  
 \* Wireless  
 \* Transceiver  
 \* Laboratory Test  
 \* Radar

#### Electrical

|                        |   |
|------------------------|---|
| Output Frequency:      | 1.25~10GHz<br>2.5~20GHz   |
| Step:                  | 0.1Hz   |
| Switching Speed:       | 10μS max.   |
| Output Power:          | 5dBm min.   |
| Frequency Stability:   | same as reference   |
| Output Spurious:       | -60dBc max.   |
| Output Harmonic:       | -5dBc max.  |
| External Reference:    | 100MHz  |
| Reference Power:       | 7±3dBm  |
| Reference Phase Noise: | -125dBc/Hz max. @100Hz<br>-153dBc/Hz max. @1kHz<br>-160dBc/Hz max. @10kHz<br>-160dBc/Hz max. @100kHz<br>-165dBc/Hz max. @1MHz |
| Voltage:               | +12±0.5V DC<br>+15V DC max.   |
| Current:               | 1.5A (first)<br>0.8A (stable)   |
| Control Type:          | SPI   |
| Impedance:             | 50Ω   |

|        |        | Output Phase Noise(dBc/Hz) |      |       |       |
|--------|--------|----------------------------|------|-------|-------|
|        |        | Freq.                      |      |       |       |
| Offset | Freq.  | 1GHz                       | 5GHz | 10GHz | 20GHz |
|        |        | 100Hz                      | -95  | -81   | -75   |
|        | 1KHz   | -105                       | -91  | -85   | -79   |
|        | 10KHz  | -115                       | -101 | -95   | -89   |
|        | 100KHz | -115                       | -101 | -95   | -89   |
|        | 1MHz   | -115                       | -101 | -95   | -89   |

#### Mechanical

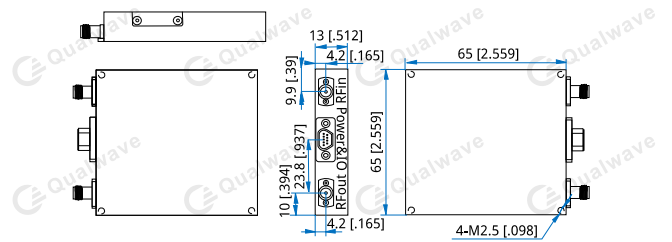
|                            |                                   |
|----------------------------|-----------------------------------|
| Size*1:                    | 65*65*13mm<br>2.559*2.559*0.512in |
| RF Connectors:             | SMA Female (removable)            |
| Power & Control Interface: | J30J-9-ZKP                        |
| Mounting:                  | 4-M2.5 Through hole               |

[1] Exclude connectors.

#### Environmental

|                            |           |
|----------------------------|-----------|
| Operating Temperature:     | -40~+70°C |
| Non-operating Temperature: | -55~+85°C |

#### Outline Drawings



Unit: mm [in]  
 Tolerance: ±0.2mm [±0.008in]

#### Pin Numbering

| Pin | Function                           |
|-----|------------------------------------|
| 1   | +12V                               |
| 2   | +12V                               |
| 3   | GND                                |
| 4   | GND                                |
| 5   | LD (Locked: high voltage)          |
| 6   | MOSI (SPI communication interface) |
| 7   | MISO (SPI communication interface) |
| 8   | SCK (SPI communication interface)  |
| 9   | LE (SPI communication interface)   |

#### How To Order

[QAFS-1250-10000-MS](#)

[QAFS-2500-20000-MS](#)

Customization is available upon request.