

## QFS-X-Y

### Narrow band in 1~40GHz

**Features:**

- \* High Frequency Stability
- \* Ultra Low Phase Noise

**Applications:**

- \* Wireless
- \* Transceiver
- \* Laboratory Test
- \* Radar

### Electrical

Output Frequency:	A narrow band in 1~40GHz
Step:	0.1Hz (1~15GHz) 0.2Hz (15~30GHz) 0.4Hz (30~40GHz)
Switching Speed:	200μS max. (SPI)
Output Power:	10dBm min.
Frequency Stability:	±2x10 <sup>-7</sup> (or same as ext. reference)
Frequency Accuracy:	±2x10 <sup>-7</sup> (or same as ext. reference)
Output Spurious:	-65dBc max. (1~15GHz) -60dBc max. (15~30GHz) -55dBc max. (30~40GHz)
Output Harmonic:	-20dBc max. (20~40GHz)
Reference:	10 or 100MHz
Reference Power:	5±3dBm
Voltage:	+12V DC
Current:	1.4A (first) 1.2A (stable)
Control Type:	RS232, SPI
Impedance:	50Ω

Freq. Offset	Output Phase Noise(dBc/Hz)					
	1GHz	5GHz	10GHz	20GHz	30GHz	40GHz
100Hz	-105	-91	-85	-79	-75	-72
1KHz	-129	-113	-107	-101	-97	-94
10KHz	-135	-122	-116	-110	-106	-103
100KHz	-135	-122	-116	-110	-106	-103
1MHz	-138	-125	-119	-113	-106	-105

### Mechanical

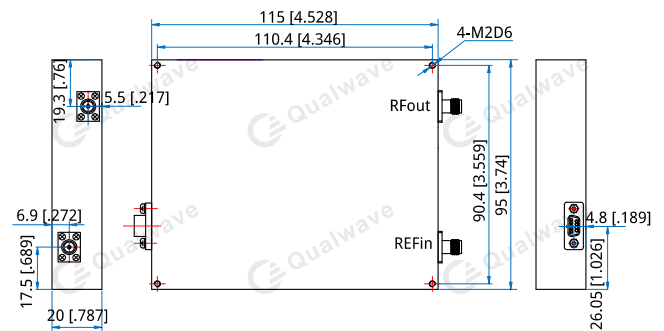
Size*1:	115*95*20mm 4.528*3.74*0.787in
REF In Connectors:	SMA Female
RF Connectors:	SMA Female (1~20GHz) 2.92 Female (20~40GHz)
Power & Control Interface:	J30J-09-ZKP
Mounting:	4-M2.5 Depth 6mm

[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 (SPI)	Function (RS232)
1	+12V	+12V
2	+12V	+12V
3	GND	GND
4	GND	GND
5	LD	NC
6	MOSI	NC
7	MISO	NC
8	SCK	RX
9	LE	TX

### How To Order

**QFS-X-Y-MR**- Module,RS232, 100MHz

**QFS-X-Y-MS**- Module, SPI, 100MHz

**QFS-X-Y-MR-1**- Module, RS232, 10MHz

**QFS-X-Y-MS-1**- Module, SPI, 10MHz

X: Start frequency (MHz)

Y: Stop frequency (MHz)

Customization is available upon request.