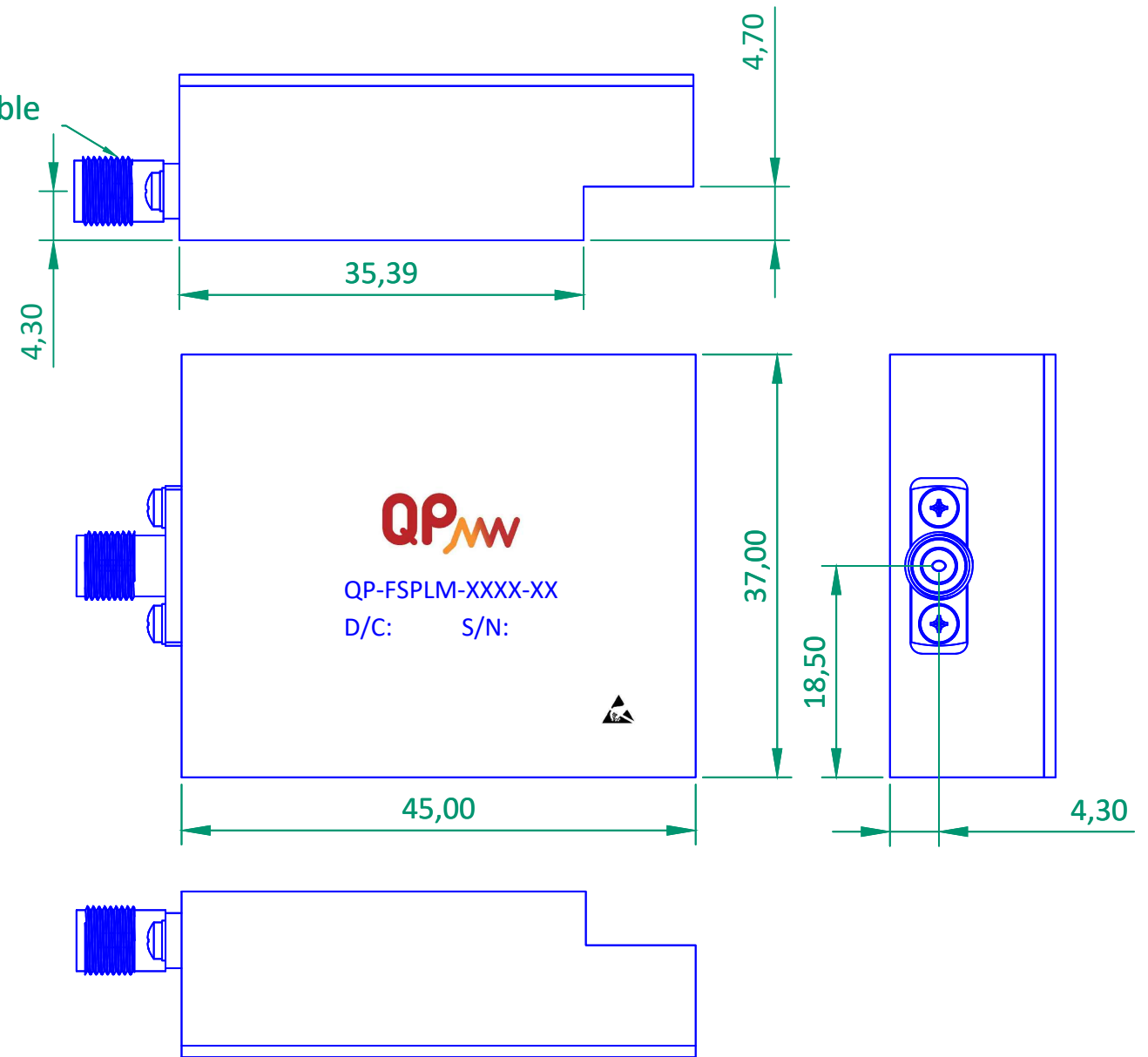
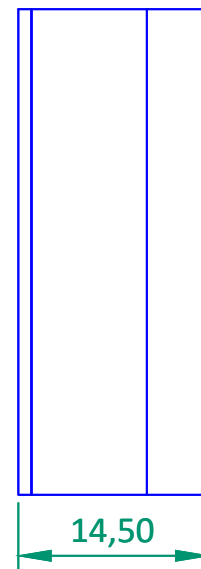


BOTTOM VIEW

ALL THE DIMENSIONS ARE SHOWN IN mm

**SMA (F)
field-replaceable**



ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE: 8-21 GHz
 FREQUENCY STEP: 10 MHz
 ATTENUATION RANGE: 31 dB
 ATTENUATION STEP: 1 dB
 SWITCHING TIME: 100 μs
 OUTPUT POWER: +15 dBm ± 1dB
 OUTPUT RETURN LOSSES: 14 dB
 2nd HARMONIC LEVEL: -35 dBc min. (15-21 GHz)
 3rd HARMONIC LEVEL: -30 dBc typ.
 SUBHARMONIC LEVEL: -30 dBc typ.
 SPURIOUS LEVEL: -70 dBc typ. (Freq. multiple of 100 MHz)
 -40 dBc (Any frequency)

PHASE NOISE (Typical)

	@8 GHz	@15 GHz	@21 GHz	Unit
1 KHz	-90	-80	-80	dBc/Hz
10 KHz	-100	-94	-91	dBc/Hz
100 KHz	-104	-96	-92	dBc/Hz
1 MHz	-123	-119	-116	dBc/Hz
5 MHz	-134	-129	-127	dBc/Hz

TEMPERATURE STABILITY: ±0.28 ppm (INTERNAL CLK)
 AGING: ±3 ppm (20 years - INTERNAL CLK)

SUPPLY VOLTAGE: +5 VDC ± 10%
 POWER CONSUMPTION: 4 W
 DIGITAL CONTROL: TTL compatible

CONNECTORS: SMA (F)
 SAMTEC TFM 10x2

PIN FUNCTIONS :

P1: F11 = 10 MHz	P2: Locked
P3: F10 = 20 MHz	P4: F1 = 10240 MHz
P5: F9 = 40 MHz	P6: F2 = 5120 MHz
P7: F8 = 80 MHz	P8: F3 = 2560 MHz
P9: F7 = 160 MHz	P10: F4 = 1280 MHz
P11: F6 = 320 MHz	P12: F5 = 640 MHz
P13: Enable	P14: A1 = 1 dB
P15: A2 = 2 dB	P16: A3 = 4 dB
P17: A4 = 8 dB	P18: A5 = 16 dB
P19: +5 V	P20: GND

Freq = 5 GHz + ΣFi, i corresponds to active frequencies
 Att= ΣAi, i corresponds to active attenuation levels

ENVIRONMENTAL RATINGS

- TEMPERATURE: -20°C TO +70°C (OPERATING)
 -40°C TO +85°C (STORAGE)
 - HUMIDITY: MIL-STD-202G, METHOD 103B COND. B
 - SHOCK: MIL-STD-202G, METHOD 213B COND. B
 - VIBRATION: MIL-STD-202G, METHOD 204D COND. B
 - ALTITUDE: MIL-STD-202G, METHOD 105C COND. B
 - TEMP. SHOCK: MIL-STD-202G, METHOD 107G COND. A



NOTE: The above specifications are subject to change or revision. Specifications are at 25°C unless stated otherwise

	QP microWAVE CÓLQUIDE 6 28231 LAS ROZAS MADRID, SPAIN	APPROVALS	DATE	SIGNED	DESCRIPTION: 8 - 21 GHz FREQ. SYNTHESIZER	REV.:	SHEET:
		DRAW	14/09/22	CRU	CODE: QP-FSPLM-0821-01	00B	1 OF 1
		CHECKED	14/09/22	BME			
		APPROVED	14/09/22	JAV			