

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

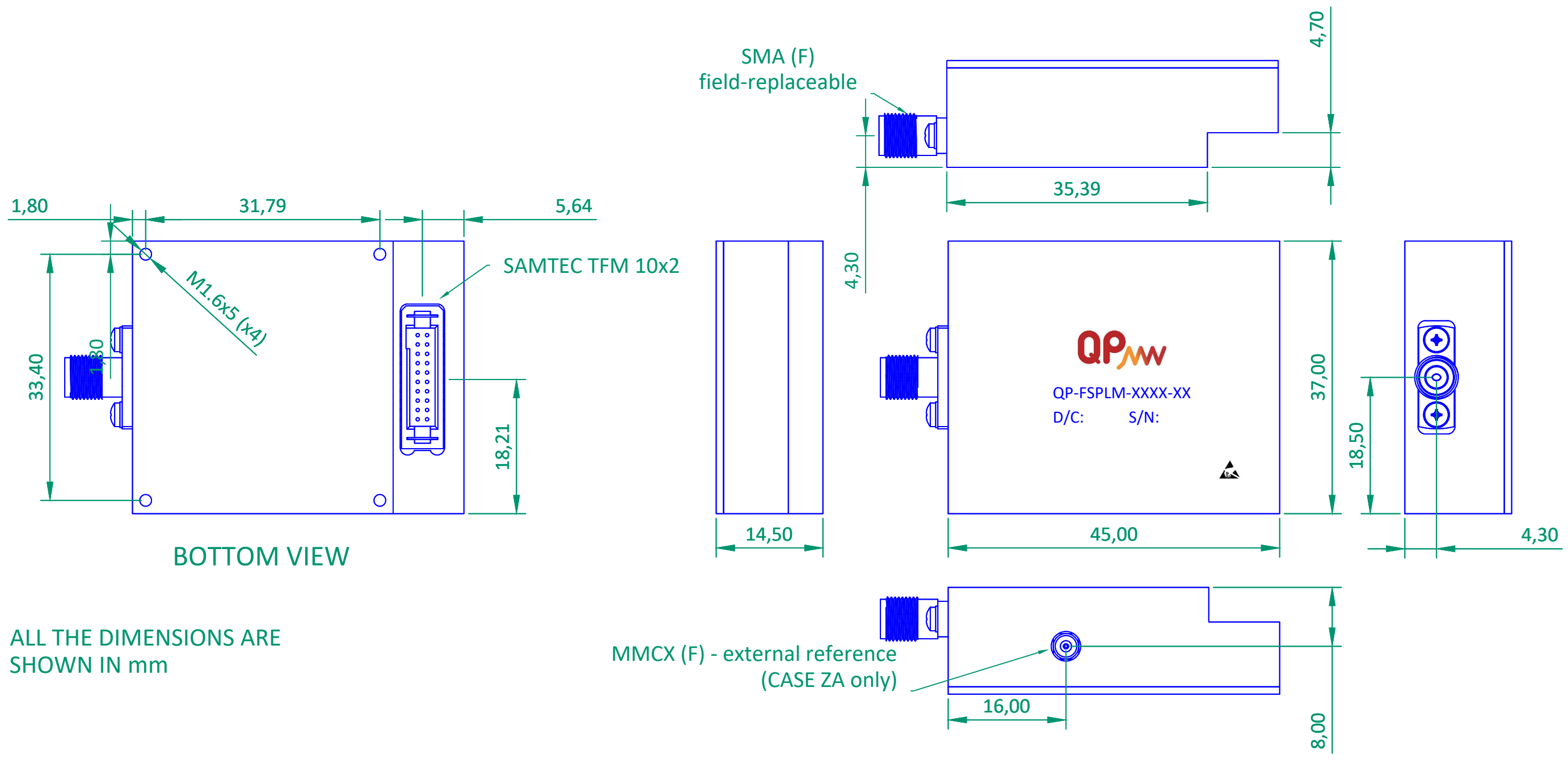
B

C

D

E

F



BOTTOM VIEW

ALL THE DIMENSIONS ARE SHOWN IN mm

ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE: 8-21 GHz
 FREQUENCY STEP: 1 Hz
 ATTENUATION RANGE: 31.5 dB
 ATTENUATION STEP: 0.25 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 with 100 MHz external clock)

	@8 GHz	@15 GHz	@21 GHz	Unit
1 KHz	-90	-92	-89	dBc/Hz
10 KHz	-99	-102	-96	dBc/Hz
100 KHz	-104	-103	-97	dBc/Hz
1 MHz	-123	-120	-120	dBc/Hz
5 MHz	-134	-132	-131	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: SPI
 OPTIONS: X=0 (INTERNAL CLK)
 X=1 (10 MHz OR 100 MHz EXTERNAL CLOCK)

SELECTABLE)
 CONNECTORS: SMA (F)
 SAMTEC TFM 10x2
 MMCX (F)

PIN FUNCTIONS:
 P12: ENABLE P13: GND
 P14: SPI_CLK P15: GND
 P16: SPI_SDO P17: SPI_CS
 P18: SPI_SDI P19: +5 V
 P20: GND
 See frequency and attenuation programming in operating instructions

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

<p>QP microWAVE CÓLQUIDE 6 28231 LAS ROZAS MADRID, SPAIN</p>	APPROVALS	DATE	SIGNED	DESCRIPTION: 8 - 21 GHz FREQ. SYNTHESIZER	REV.:	SHEET:
	DRAW	14/09/22	CRU	QP-FSPLM-0821-X2	00B	1 OF 1
	CHECKED	14/09/22	BME			
APPROVED	14/09/22	JAV				

1 2 3 4 5 6 7 8 RCHDC_EN_01