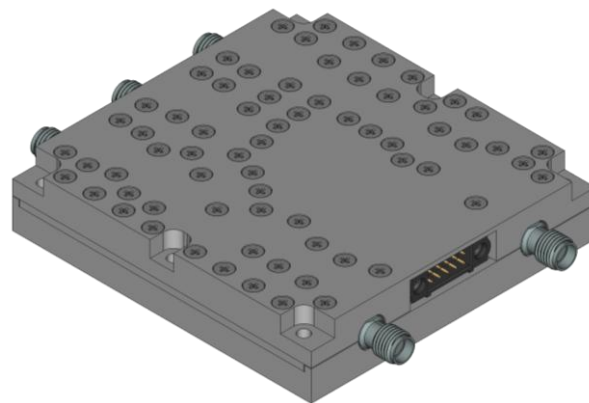


FEATURES:

- High Output Power
- LO x2 Multiplication
- Single Supply Voltage
- Low Spurious and LO Leakage
- Pulsed & CW TX Operation


ELECTRICAL SPECIFICATIONS:

Parameter	Min.	Typ.	Max.	Units
RF Frequency Range	23500	24000	24500	MHz
External LO Frequency Range	13100	13600	14100	MHz
IF Frequency Range	2700	3200	3700	MHz
Instantaneous Bandwidth (IBW)		1000		MHz
Upconverter Input Power Level		0		dBm
Upconverter Output Power	32	33		dBm
Upconverter On/Off Time			500	ns
Downconverter Input Power Level			-30	dBm
Downconverter Gain	36	39	42	dB
Downconverter Noise Figure		5		dB
External LO Input Power	3		5	dBm
RF VSWR			2.2:1	
IF VSWR			2.2:1	
LO VSWR			2.2:1	
Spurious & LO Leakage		-70		dBc
Operating DC Voltage	+10	+12	+14	Volts
Operating DC Current		0.6	0.8	A
Control Voltage	TTL (0V-0.8V: Low, 2.2V-5V: High) High: TX (Upconversion), Low: RX (Downconversion)			

*Electrical specifications are given at 25 °C.

ABSOLUTE MAXIMUM RATING:

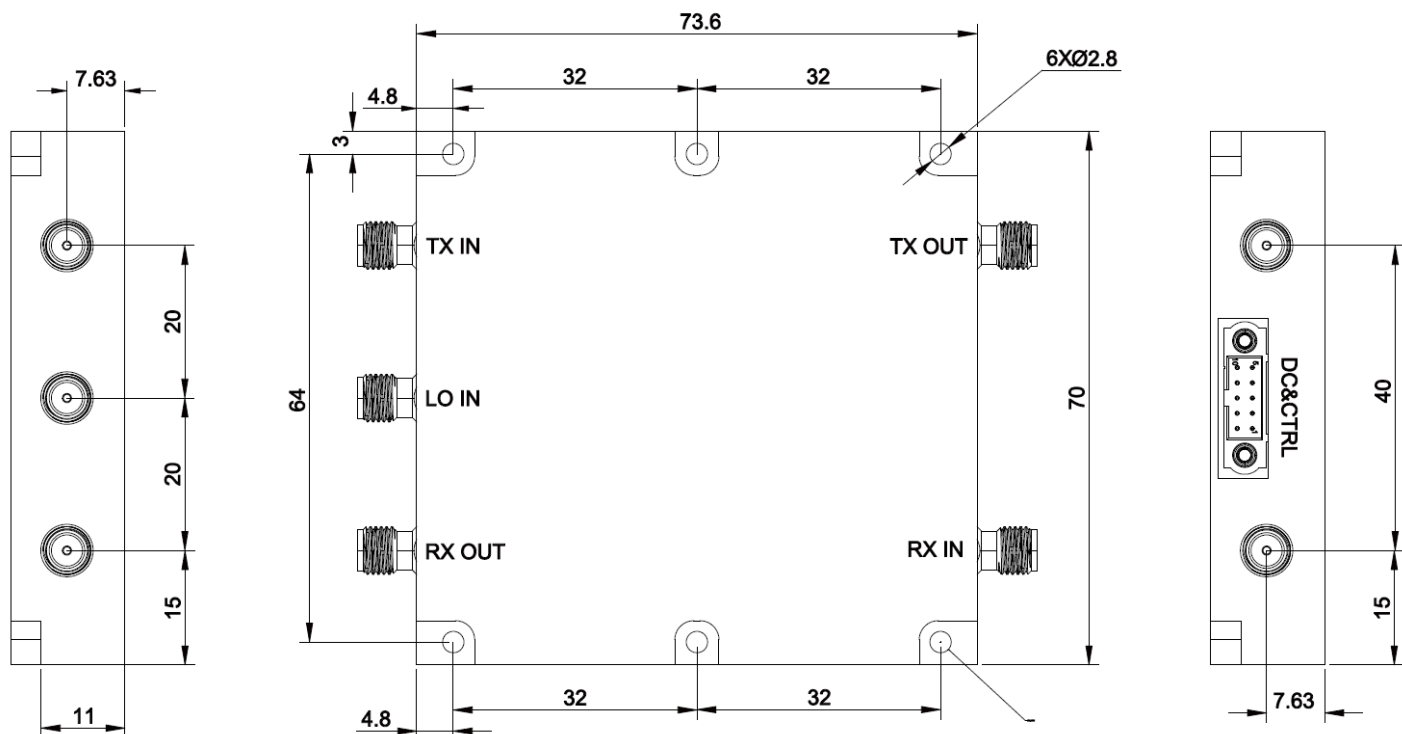
Parameter	Min.	Typ.	Max.	Units
DC Voltage			+14	Volts
RX Input Power			0	dBm
Operating Case Temperature	-40		+70	°C
Storage Temperature	-40		+85	°C

MECHANICAL SPECIFICATIONS:

Parameter	Value	Units
Dimensions (L x W x H)	73.6 x 70 x 15	mm
RF Connectors (IF, LO, RF)	SMA, Female	
DC & Control Connector	Harwin Datamate M80-5301042 2x5 Pin	
Cooling	External Heatsink Required	
Mechanical Housing	Chromate Conversion Coated Aluminum	

MECHANICAL OUTLINE:

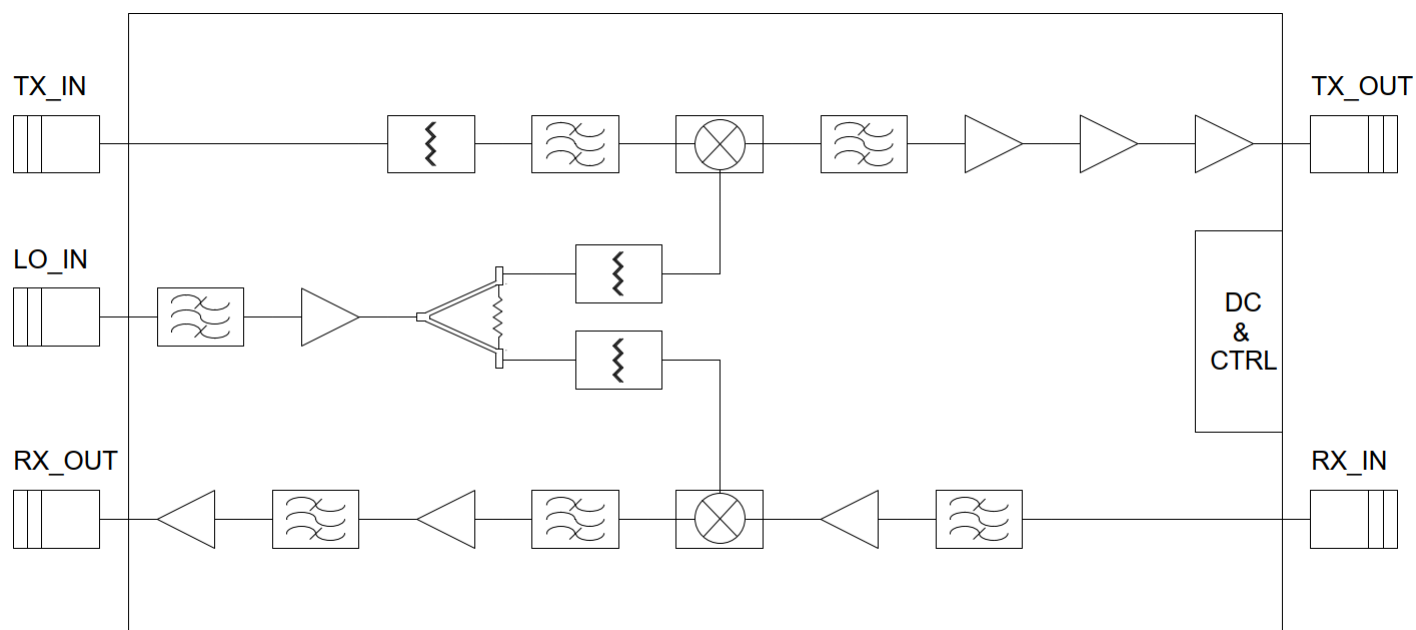
- All dimensions are in mm
- Tolerances: +/- 0.2 mm



DC&Control Conn Pin #	Function	Type
1	TX_EN	TTL (1:TX, 0:RX)
2	GND	GND
3	GND	GND
4	12V	DC
5	12V	DC
6	N/C	-
7	VDET_PA	Analog (1.1V @ 33dBm)
8	VTEMP_PA	Analog (25°C:0.75V, 10mV/°C)
9	12V_RTN/GND	GND
10	12V_RTN/GND	GND



BLOCK DIAGRAM:





REVISION HISTORY:

Rev. No.	Date	Description
P1	27-May-2024	Preliminary Release
A	25-Aug-2025	Original Release Added <i>Mechanical Outline</i> Updated <i>Electrical Specifications</i>