

FEATURES:

- High Output Power
- Single Supply Voltage
- Low Spurious and LO Leakage
- Pulsed & CW TX Operation
- Ku Band Operation (RF, IF, LO Frequencies can be Changed)



ELECTRICAL SPECIFICATIONS:

Parameter	Min.	Typ.	Max.	Units
RF Frequency Range	13750	14125	14500	MHz
External LO Frequency		12800		MHz
IF Frequency Range	950	1325	1700	MHz
Instantaneous Bandwidth (IBW)		750		MHz
Upconverter Input Power Level		0		dBm
Upconverter Output Power	30	33		dBm
Upconverter On/Off Time			500	ns
Downconverter Input Power Level			-30	dBm
Downconverter Gain		40		dB
Downconverter Noise Figure		5		dB
External LO Input Power		5		dBm
RF VSWR		2:1		
IF VSWR		2:1		
LO VSWR		2:1		
Spurious & LO Leakage		-70		dBc
Operating DC Voltage	+10	+12	+14	Volts
Operating DC Current		0.6	1	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:

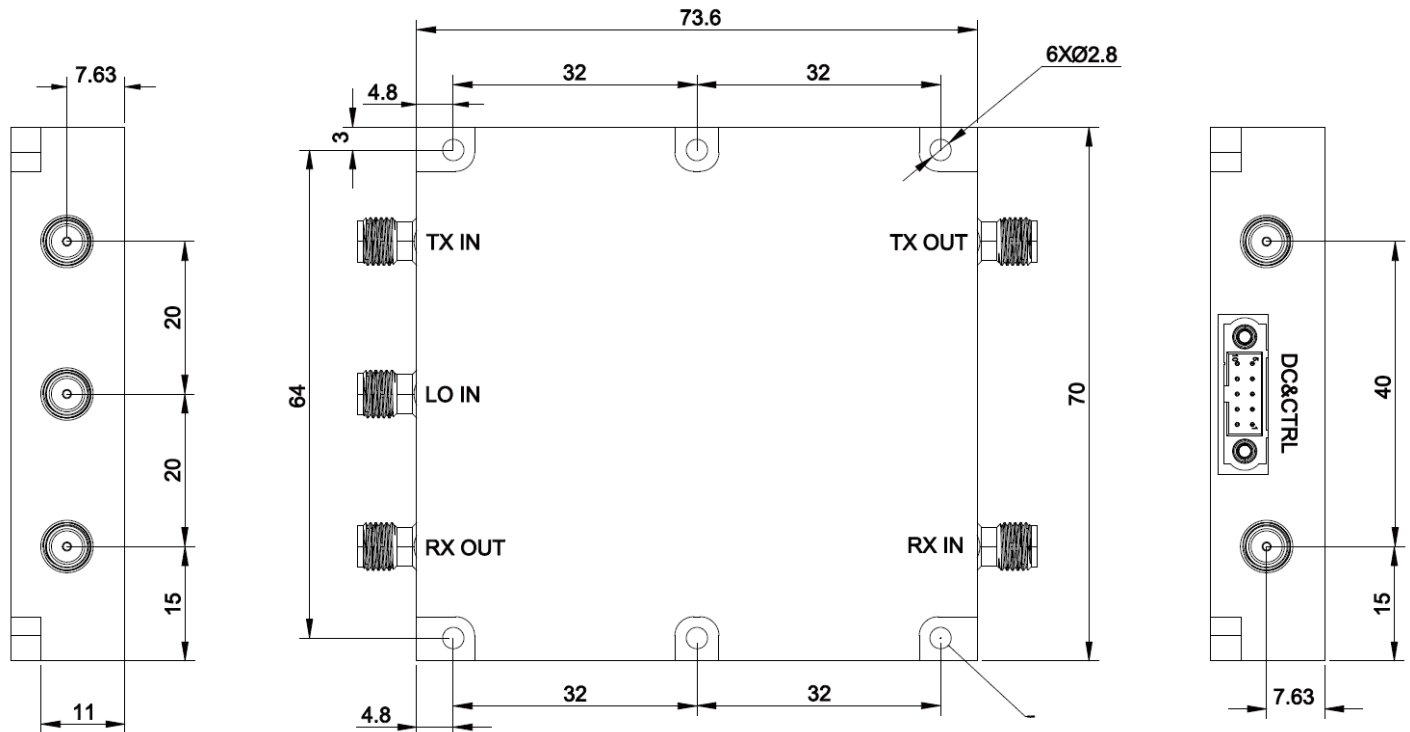
Parameter	Min.	Typ.	Max.	Units
DC Voltage			+14	Volts
RX Input Power			0	dBm
Operating Case Temperature	-40		+70	°C
Storage Temperature	-40		+85	°C

MECHANICAL SPECIFICATIONS:

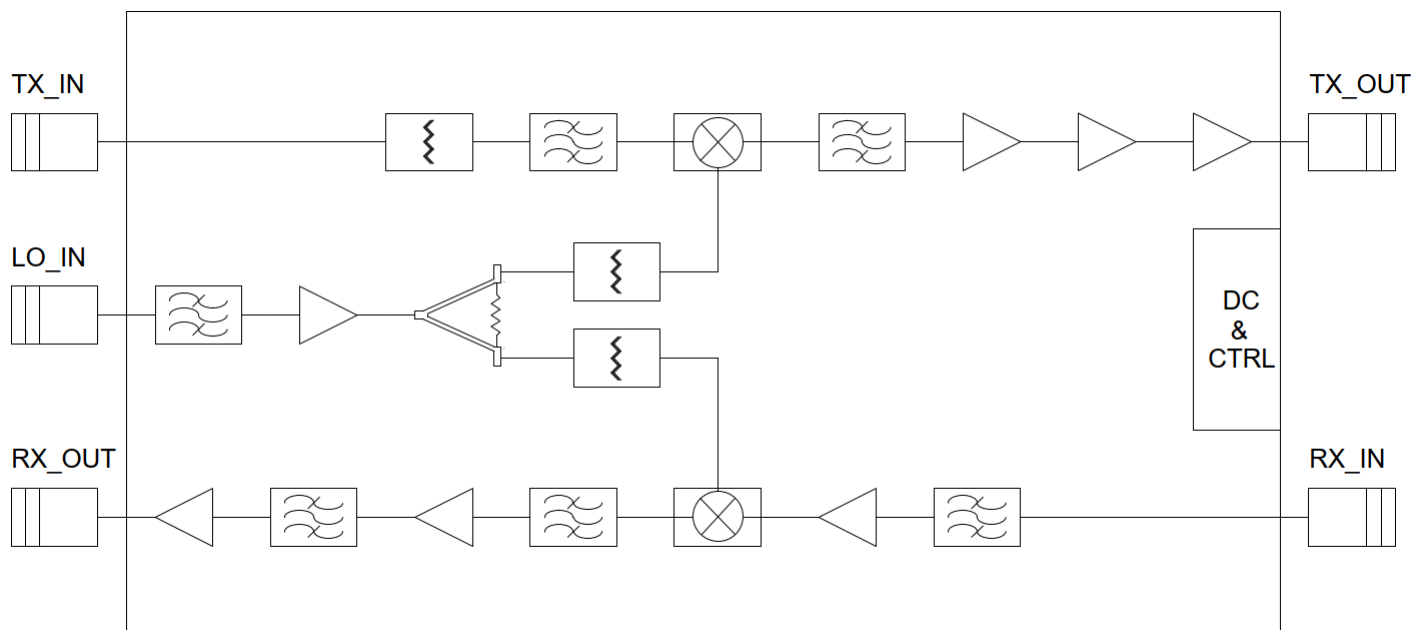
Parameter	Value	Units
Dimensions (L x W x H)	73.6 x 70 x 15	mm
RF Connectors (IF, LO, RF)	SMA, Female	
DC & Control Connector	Harwin Datamate M80-5301042 2x5 Pin	
Cooling	External Heatsink Required	
Mechanical Housing	Chromate Conversion Coated Aluminum	

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
8	VTEMP_PA	Analog
9	12V_RTN/GND	GND
10	12V_RTN/GND	GND

BLOCK DIAGRAM:




REVISION HISTORY:

Rev. No.	Date	Description
P1	09-Jul-2026	Preliminary Release