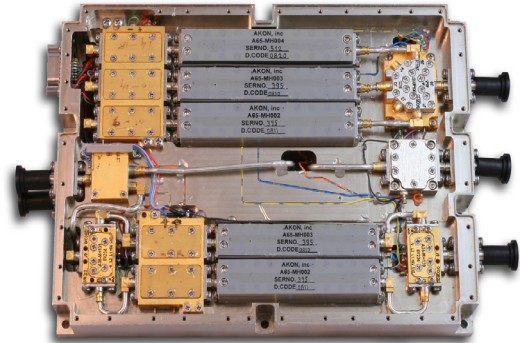


FEATURES:

- TYPE 2 TUNER
- 0.4 - 18.0 GHz INPUT FREQUENCY RANGE
- PRE-FILTERED TO AVOID HARMONICS
- 2.0 - 6.0 GHz OUTPUT
- 21 dB TOTAL GAIN
- OUTPUT AMPLIFIER WITH +20 dBm OUTPUT POWER
- SIZE: 6.8" x 5.1" x 1.0"



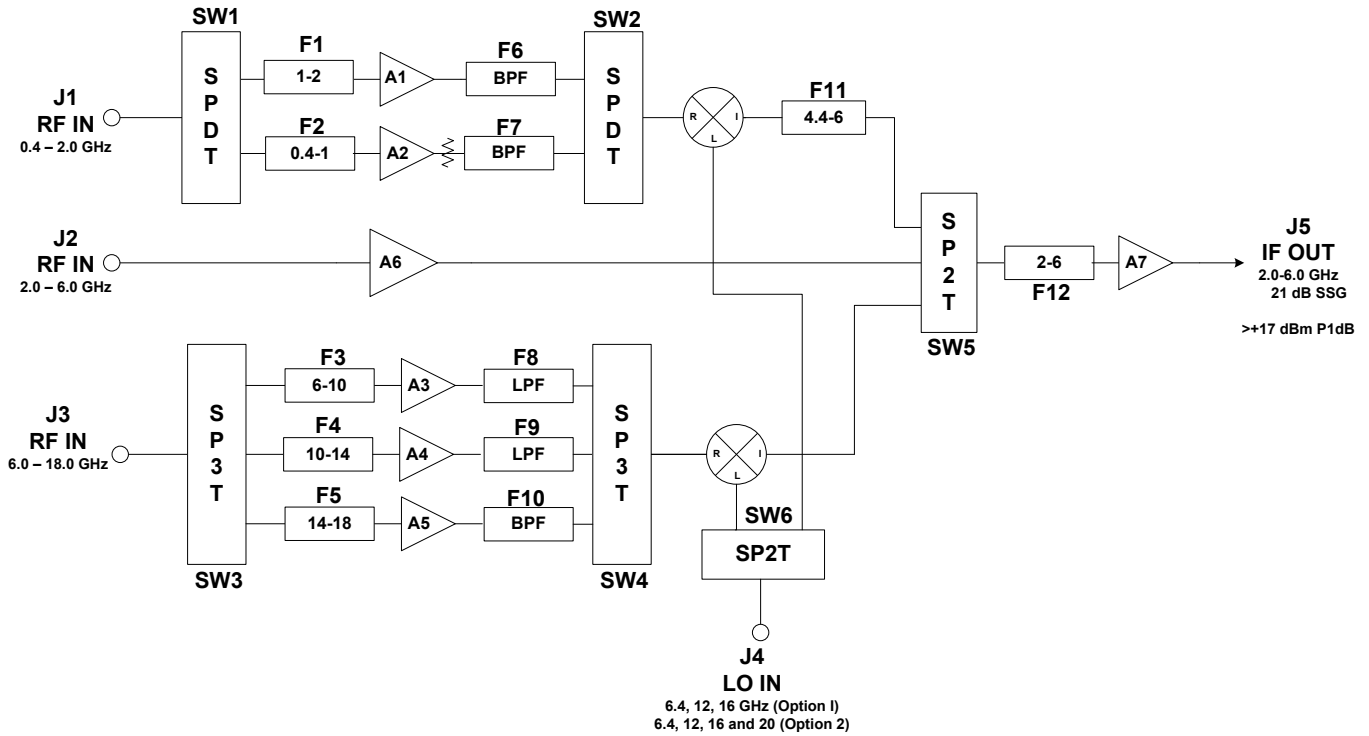
AKON's A20-MX084 is an ultra wideband, three input 0.4 - 18 GHz combination up and down converter. Signals in the 0.4 to 2.0 band pass through a two channel filter preselector, and these channels are individually upconverted into the 2 to 6 GHz band. Signals in the 2 to 6 GHz band pass through the unit without frequency conversion, only amplification. Signals in the 6 to 18 GHz band pass through a three channel filter preselector and are then individually downconverted to the 2 to 6 GHz band. Input NF is band dependent and varies from 8.5 to 12 db. Conversion gain is 21 dB typical, and deselected channel isolation is typically 60 dB.

SPECIFICATIONS:

Model Number	A20-MX084	
Frequency Range (GHz)	J1: 0.4 - 2.0 J2: 2.0 - 6.0 J3: 6.0 - 18.0	
LO Input (dBm)	J5: +20 (typ) Harmonics: -40 dBc (max) Spurious: -60 dBc (max)	
RF Frequencies and Corresponding LO Frequencies (GHz)	RF	LO
	0.4 - 1.0	6.4
	1.0 - 2.0	6.4
	6.0 - 10.0	12.0
	10.0 - 14.0	16.0
	14.0 - 18.0	12.0
Gain, Gain Flatness (dB)	21 (nom), (+/- 3 (max) , +/- 2 (85% BW))	
VSWR	2.0:1 (nom); < 3.0:1 (95% BW)	
Harmonics (dBc)	Pre-mixing > 60; Post-mixing -35 (nom)	
Image Rejection/Spurious (dBc)	RF Band	dBc
	0.4 - 2.0	-40
	2.0 - 6.0	-40
	6.0 - 10.0	-38
	10.0 - 14.0	-40
	14.0 - 18.0	-40
Input 1 dB Compression (dBm)	J1: -2 (typ) J2: -3 (typ) J3: -4 (typ)	
Power Supply (VDC)	+12 @ 1.7A (max) -12 @ 0.4A (max)	
Noise Figure (dB)	J1: 10.5 (max) J2: 8.5 (max) J3: 12.0 (max)	
Isolation (dBm)	60 (min)	
Filter Rejection (dBc)	-60 @ 15% From Band Edges	

Note: All dimensions are specified in inches (mm)

BLOCK DIAGRAM:



OUTLINE DRAWING:

