

Military Communications - Ruggedized Bandpass Tunable Filters

◆ Description:

K&L Microwave autotuned bandpass filters are high "Q" devices covering the VHF frequency band 100 to 164 MHz. When configured with a VHF Transceiver, these devices provide filtering solutions for field applications where co-location interference must be eliminated. Each filter is tuned by a remote BCD interface output from the transceiver. When a new frequency is entered on the radio, the filter tunes to the same frequency automatically. An internal microprocessor is used for all control functions of the filter, reducing the number of electronic and electro-mechanical components in the unit while maintaining high accuracy.

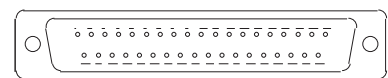
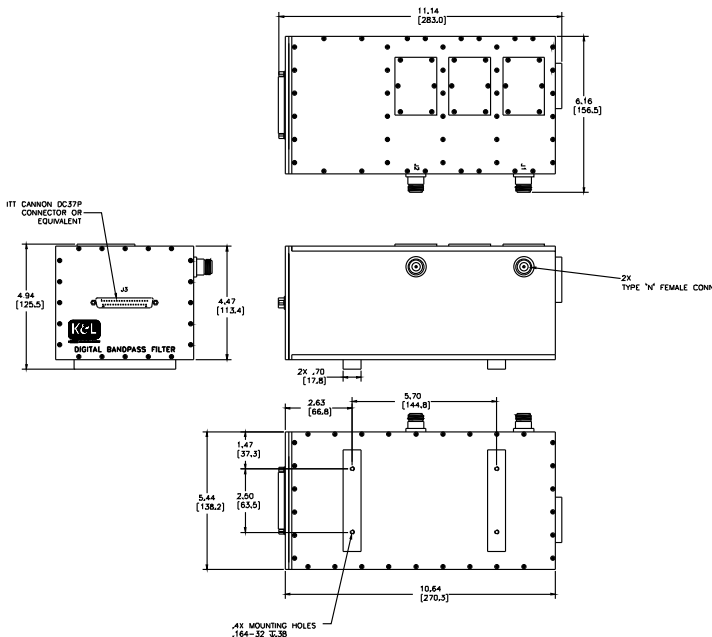


K&L Model: D3HBTM-100/164-1-N/N-ERI

◆ Specifications:

Tuning Range: 100 MHz-164 MHz
 3 dB Bandwidth: >800 KHz
 Filter shape factor
 30 dB BW / 3 dB BW: 4.5:1 (3.5:1 Nominal)
 VSWR: 1.5:1 maximum
 Insertion loss: 2.7 dB maximum
 2.4 dB typical
 RF Impedance: 50 ohms
 RF Power Handling: 40 watts average
 160 watts peak
 RF Connectors: 'N' Type
 Data Connector: 37 Pin 'D'

Control Interface: 'BCD' 16 line parallel std.
 GPIB, RS-232, RS-422 opt.
 Operating Temperature: -20 to 45°C
 Storage Temperature: -40 to 70°C
 Tuning Time: 7 seconds typ.
 10 seconds max.
 (Entire Range)
 Tuning Accuracy: 25 kHz typical
 50 kHz maximum
 Supply Power: 24 VDC to 33 VDC std.
 12 VDC, 110 VAC opt.
 Humidity: 95% Storage
 85% Operation
 EMC intent: Mil Std 461



J3 PIN ASSIGNMENTS
FUNCTION

PIN NO	FUNCTION
1	LSB } CODED REPRESENTATION OF 10 KHZ/1 KHZ DIGITS MSB } 0=0 KHZ, 1=25 KHZ, 2=50 KHZ, 3=75 KHZ
2	
3	
4	LSB } BCD REPRESENTATION OF 100 KHZ DIGIT MSB } (0-9)
5	
6	
7	LSB } BCD REPRESENTATION OF 1 MHZ DIGIT MSB } (0-9)
8	
9	
10	MSB } BCD REPRESENTATION OF 10 MHZ DIGIT LSB } (0-9)
20	
21	
22	MSB } BCD REPRESENTATION OF 100 MHZ DIGITS LSB } (1-3)
23	
24	
25	MSB (1-3)
26	TUNE INPUT
32	SPARE
17	} GROUND
18	
19	
35	} UNREGULATED 28V
36	
37	

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