

UHF PROGRAMMABLE ACTIVE CRYSTAL FILTER*

380 - 512 MHz

ACF4 Series

Product Features

- Crystal filter based filtering system, 12.5KHz, 25KHz and 50KHz BW
- Software programmable tuning, 3.125 KHz steps
- Sharp filtering response
- Front end LNA included for low noise figure
- User adjustable gain
- Transmitter Bypass (TXBP) available for transceivers applications
- N(f) to SMA(m) jumpers included, 1 ft, 2 pcs

Applications

- P25, DMR, NXDN, TETRA, Conventional and others
- Repeaters sites, mobile and base station
- High RF congested environments
- Mobile applications like trains and cars / trucks



Programmable Active Crystal Filter
(US Patent protected)



Specification

Value

Specification	Value														
Type	Programmable Crystal Filter*														
Frequency bands and Bandwidths	<table border="0"> <tr> <td>ACF41-50</td> <td>380 – 430MHz range & 50KHz BW</td> </tr> <tr> <td>ACF42-12.5</td> <td>450 – 470MHz range & 12.5KHz BW</td> </tr> <tr> <td>ACF42-25</td> <td>450 – 470MHz range & 25KHz BW</td> </tr> <tr> <td>ACF43-12.5</td> <td>465 – 485MHz range & 12.5KHz BW</td> </tr> <tr> <td>ACF43-25</td> <td>465 – 485MHz range & 25KHz BW</td> </tr> <tr> <td>ACF44 - 12.5</td> <td>485 - 512MHz range & 12.5KHz BW</td> </tr> <tr> <td>ACF44-25</td> <td>485 - 512MHz range & 25KHz BW</td> </tr> </table>	ACF41-50	380 – 430MHz range & 50KHz BW	ACF42-12.5	450 – 470MHz range & 12.5KHz BW	ACF42-25	450 – 470MHz range & 25KHz BW	ACF43-12.5	465 – 485MHz range & 12.5KHz BW	ACF43-25	465 – 485MHz range & 25KHz BW	ACF44 - 12.5	485 - 512MHz range & 12.5KHz BW	ACF44-25	485 - 512MHz range & 25KHz BW
ACF41-50	380 – 430MHz range & 50KHz BW														
ACF42-12.5	450 – 470MHz range & 12.5KHz BW														
ACF42-25	450 – 470MHz range & 25KHz BW														
ACF43-12.5	465 – 485MHz range & 12.5KHz BW														
ACF43-25	465 – 485MHz range & 25KHz BW														
ACF44 - 12.5	485 - 512MHz range & 12.5KHz BW														
ACF44-25	485 - 512MHz range & 25KHz BW														
Programmable steps	3.125 KHz														
Rejection	<table border="0"> <tr> <td>12.5KHz BW</td> <td>30 dBc min @ adjacent channel (+/-12.5 KHz)</td> <td>60 dBc min @ semi-adjacent channel (+/-25 KHz)</td> </tr> <tr> <td>25KHz BW</td> <td>30 dBc min @ adjacent channel (+/-25 KHz)</td> <td>60 dBc min @ semi-adjacent channel (+/-50 KHz)</td> </tr> <tr> <td>50KHz BW</td> <td>16 dBc min @ adjacent channel (+/-50 KHz)</td> <td>40 dBc min @ semi-adjacent channel (+/-100 KHz)</td> </tr> </table>	12.5KHz BW	30 dBc min @ adjacent channel (+/-12.5 KHz)	60 dBc min @ semi-adjacent channel (+/-25 KHz)	25KHz BW	30 dBc min @ adjacent channel (+/-25 KHz)	60 dBc min @ semi-adjacent channel (+/-50 KHz)	50KHz BW	16 dBc min @ adjacent channel (+/-50 KHz)	40 dBc min @ semi-adjacent channel (+/-100 KHz)					
12.5KHz BW	30 dBc min @ adjacent channel (+/-12.5 KHz)	60 dBc min @ semi-adjacent channel (+/-25 KHz)													
25KHz BW	30 dBc min @ adjacent channel (+/-25 KHz)	60 dBc min @ semi-adjacent channel (+/-50 KHz)													
50KHz BW	16 dBc min @ adjacent channel (+/-50 KHz)	40 dBc min @ semi-adjacent channel (+/-100 KHz)													
Overall gain, max	25 dB (+/-2 dB)														
Adjustable gain range	20 dB range														
Maximum output power	0 dBm														
Maximum input power, no damage	0 dBm														
Overload protection	Yes, self recovery														
VSWR, max	1.5:1 max														
Noise figure	<4 dB at max gain														
Alarms	Yes, LNA failure, Main Power Supply failure, Backup Power Supply failure, Overload, Excessive Input Power														
Alarms output	LEDs and Dry Contacts														
RF Connectors	SMA (f)														
Programming	Via USB														
Power, DC	12 to 48 VDC 5 W														
DC ports	Two DC input ports, main & backup														
Dimension	8 x 6 x 1 inches • 203 x 152 x 25 mm														
Weight	2.2 lbs • 1.0 kg														
Environmental	IP21, indoor applications														
Temperature range	14° to 122° F • -10° to +50° C														
Tx Bypass	Yes, option TXB4, up to 50W														

DOC TW049.06 - 11/22/2017
 *The Programmable Active Crystal Filter is US Patent Protected by Fiplex Communications, Inc.
 Fiplex is a registered trademark of Fiplex Communications, Inc. Fiplex Communications, Inc. reserves the right to change specifications without prior notice.