

INTRODUCTION

- Eight 2 GHz Channels
- 256 Filter States
- Fast, <100 ns Switching Speed
- Low Noise Figure, 15 dB nominal

BSC have independently developed a fully reconfigurable adaptive filter solution, designed for fast & seamless switching into any of 256 filter states across the 2-18 GHz range.

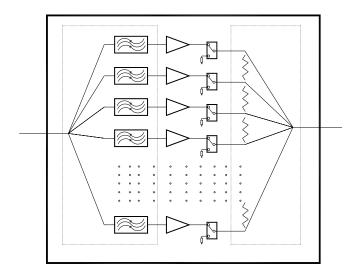
Ideally suited to EW front-end preselection or protection, any combination of bandpass and bandstop states can be selected almost instantly.



Each 2 GHz channel can be switched in (bandpass) and out (bandstop) of the signal path with a switching time of less than 100 ns. DC power and 8-bit TTL control is supplied through a standard 15-pin MDM connector.

In the crowded spectrum of the future, front-end flexibility is of increasing importance. Not limited to 2-18 GHz or equal channel widths, the same core architecture may be used in more specific bands, for example at VHF/UHF frequencies. This makes the system equally as suited to EW as it is to Mil Comms applications, where sampling sensitivity or frequency-agile protocols respectively are key to system function.

TYPICAL ARCHITECTURE





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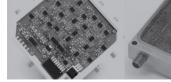


SPECIFICATION

Channel	Nominal	Offset from	Useable	Lower 50 dB	Upper 50 dB
	Passband	Band Edge	Passband	Rejection	Rejection
1	2—4 GHz	- 250 MHz	2.00—3.75 GHz	N/A	5 GHz
2	4—6 GHz	+/- 250 MHz	4.25—5.75 GHz	3 GHz	7 GHz
3	6—8 GHz	+/- 250 MHz	6.25—7.75 GHz	5 GHz	9 GHz
4	8—10 GHz	+/- 300 MHz	8.30—9.70 GHz	7 GHz	11 GHz
5	10—12 GHz	+/- 300 MHz	10.30—11.70 GHz	9 GHz	13 GHz
6	12—14 GHz	+/- 400 MHz	12.40—13.60 GHz	11 GHz	15 GHz
7	14—16 GHx	+/- 400 MHz	14.40—15.60 GHz	13 GHz	17 GHz
8	16—18 GHz	+ 400 MHz	16.40—18.00 GHz	15 GHz	N/A

Characteristic	Specification			
Passband Insertion Loss:	0 dB nominal, +/- 2.5 dB max			
Passband insertion Loss:	(+/- 0.05 dB/°C deviation)			
Passband VSWR:	2.5:1 nominal, 3:1 max			
Passband Group Delay Variation:	6 ns max			
Noise Figure:	15 dB nominal, 17 dB max			
P1dB (input):	+5 dBm min			
IP3 (input):	+ 15 dBm min			
Reconfiguration Time:	100 ns max			
Operating Temperature:	-30°C to +70°C			
Control Method:	8-bit TTL			
DC Power Supply:	+12 V / -12 V			
Current Concumption	+12V: 1.5 A max			
Current Consumption:	-12V: 100 mA max			
RF Connectors:	SMA Female			
DC & Control Connector:	15-pin MDM, male contact			
External Dimensions (Excluding Connectors):	130 x 105 x 16 mm typical			

Pin	Function	Pin	Function	Pin	Function
1	GND	6	CH 2	11	CH 5
2	+12 V	7	CH 3	12	CH 6
3	+12 V	8	GND	13	CH 7
4	-12 V	9	GND	14	CH 8
5	CH 1	10	CH 4	15	GND









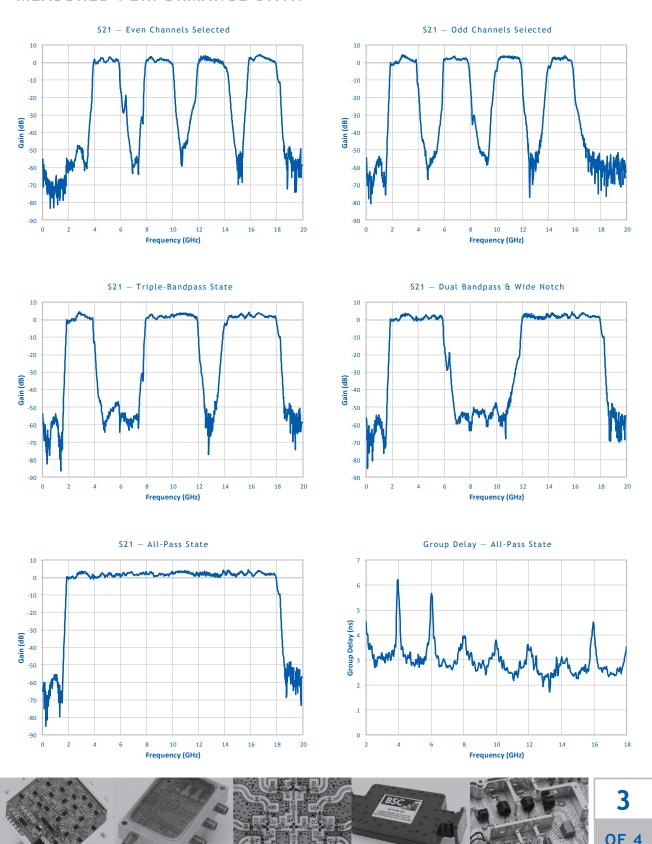


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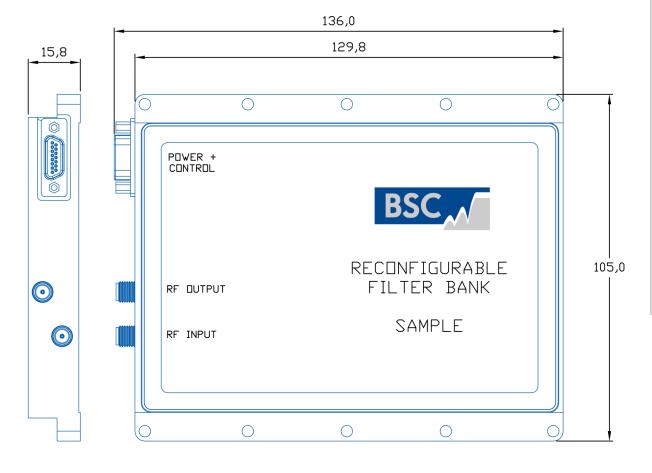
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MEASURED PERFORMANCE DATA



OUTLINE





BSC Filters Limited

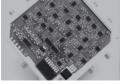
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