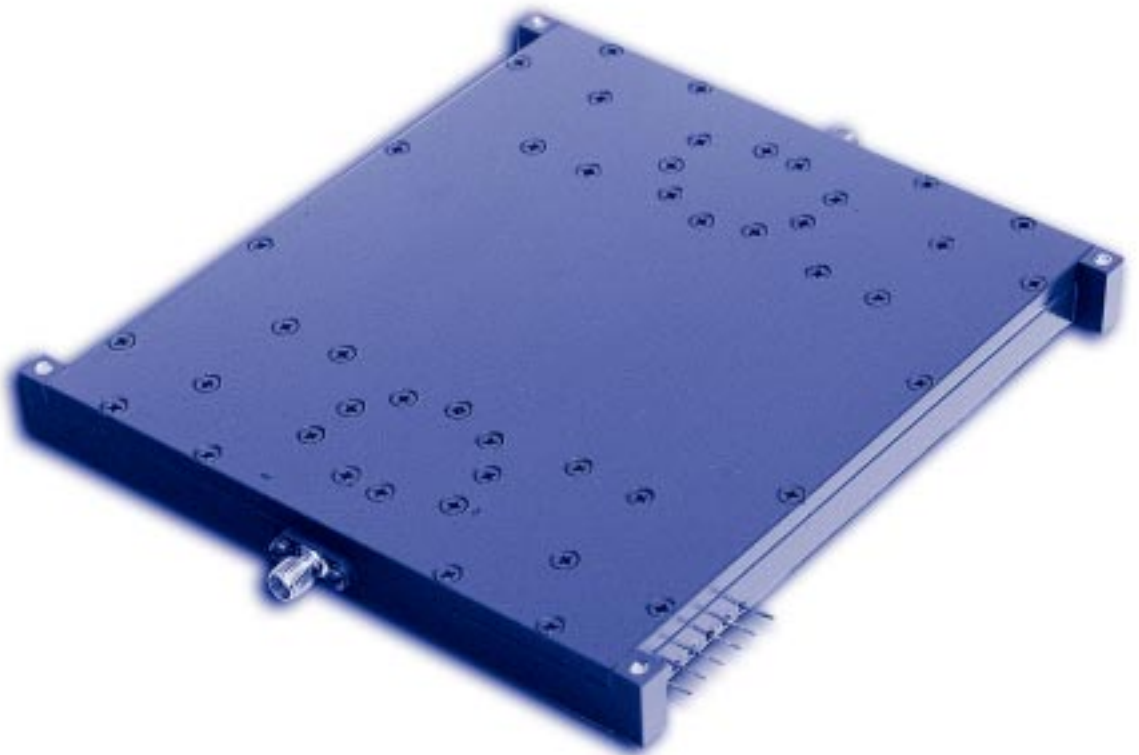




## Switched Filter Banks

Reactel is a leader in the design and manufacture of Switched Filter Banks. We build our own switches and combine them with our filters to provide an assembly which is compact and efficient. The following pages contain a sample of our capabilities, but in no way are the limits of what we can do. Please contact us with your unique requirement.





## 4 Channel Switched Filter Bank

Reactel's model 4SW-7.5/18-S11 is a solid state 4 Channel Switched Filter Bank with an auxiliary path operating with +5 Vdc and -5 Vdc supplies. Supply power energizes an integral four section driver module which translates the incoming control TTL signal to a push/pull current mechanism thru PIN diodes. Flow of forward current in diodes and presence of back biasing voltage across the diodes provides the switching function to the unit.



### Channel Responses

Characteristic	CH#1	CH#2	CH#3	CH#4
Center Frequency	7.5 GHz	10.9 GHz	14.4 GHz	18 GHz
Passband	3.1 GHz	3.9 GHz	3.3 GHz	4.1 GHz
Rejection Points	$\geq 50$ dB @ 5.2 GHz	$\geq 50$ dB @ 5.4 GHz	$\geq 50$ dB @ 11.2 GHz	$\geq 50$ dB @ 14.4 GHz
	$\geq 50$ dB @ 11.2 GHz	$\geq 50$ dB @ 14.4 GHz	$\geq 20$ dB @ 18 GHz	$\geq 20$ dB @ 21 GHz



# 4 Channel Switched Filter Bank

## Specifications

Operating Frequency Range	DC-26 GHz
Total Insertion Loss	7.5 dB maximum
Group Delay	$\leq 2\text{nS}$ @ any 80 MHz segment of passband
VSWR (Over Passband)	2.5:1 maximum
Ultimate Attenuation	$\geq 20$ dB up to 26 GHz
Switching Speed	1 $\mu\text{S}$ maximum
Controlling Logic	4 Independent TTL logic controls
Supply Voltage	+5 Vdc @ 100 mA maximum -5 Vdc @ 60 mA maximum
Size	.45" x 2.7" x 4.5" nominal

## Environmental Rating

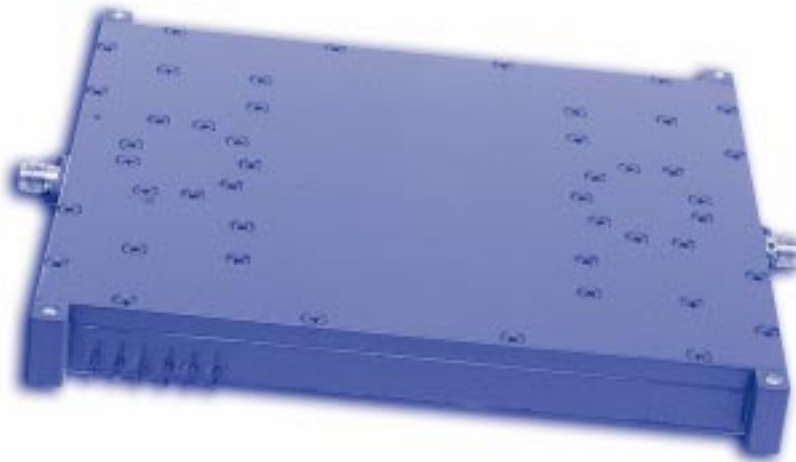
Operating Temperature Range	-65° to +110 °C
Non-Operating Temperature Range	-65° to +125 °C
Humidity	MIL-STD-202F, Method 103B, Cond. B
Shock	MIL-STD-202F, Method 213B, Cond. B
Vibration	MIL-STD-202F, Method 204D, Cond. B
Altitude	MIL-STD-202F, Method 105C, Cond. B

A variety of options are available for this model number. Consult factory for details.



## 8 Channel Switched Filter Bank

Reactel's model 8SW-.95/6.05-S11 is a solid state 8 channel switchable filter bank operating with +5 Vdc and -5 Vdc supplies. Supply power energizes an integral eight section driver module which translates the incoming control TTL signal to a push/pull current mechanism thru PIN diodes. Flow of forward current in diodes and presence of back biasing voltage across the diodes provides the switching function to the unit.



### Channel Responses

Characteristic	CH#1	CH#2	CH#3	CH#4	CH#5	CH#6	CH#7	CH#8
Center Frequency	1.25 GHz	1.90 GHz	2.70 GHz	3.50 GHz	4.05 GHz	4.50 GHz	5.10 GHz	5.70 GHz
Flat Passband	600 MHz	900 MHz	900 MHz	900 MHz	400 MHz	700 MHz	700 MHz	700 MHz
Rejection Points	25 dB @ 770 MHz 50 dB @ 1.85 GHz	50 dB @ 1.15 GHz 50 dB @ 2.6 GHz	50 dB @ 1.15 GHz 40 dB @ 3.4 GHz	50 dB @ 1.15 GHz 40 dB @ 4.2 GHz	40 dB @ 3.1 GHz 35 dB @ 4.45 GHz	40 dB @ 3.7 GHz 35 dB @ 5.05 GHz	40 dB @ 4.3 GHz 35 dB @ 6.0 GHz	40 dB @ 4.9 GHz 40 dB @ 7.5 GHz



# 8 Channel Switched Filter Bank

## Specifications

Operating Frequency Range	DC-18 GHz
Total Insertion Loss	6.0 dB maximum
Group Delay	$\leq 2\text{nS}$ @ any 80 MHz segment of passband
VSWR (Over Passband)	2.5:1 maximum
Ultimate Attenuation	$\geq 40$ dB up to 18 GHz
Switching Speed	50 nS maximum
Controlling Logic	8 Independent TTL logic controls
Supply Voltage	+5 Vdc @ 250 mA maximum -5 Vdc @ 100 mA maximum
Size	.45" x 3.5" x 4.5" nominal

## Environmental Rating

Operating Temperature Range	-65° to +110 °C
Non-Operating Temperature Range	-65° to +125 °C
Humidity	MIL-STD-202F, Method 103B, Cond. B
Shock	MIL-STD-202F, Method 213B, Cond. B
Vibration	MIL-STD-202F, Method 204D, Cond. B
Altitude	MIL-STD-202F, Method 105C, Cond. B

A variety of options are available for this model number. Consult factory for details.