

# MMB430A - Preliminary

## 4248-4352MHz MMB Series BPF

### Features

- Low Loss with High Rejection
- Universal footprint across family for all TDD bands

### Applications

- Wireless Infrastructure applications
- High-performance carrier-grade TDD Pico-cells.



Part Dimensions: 40.0 × 5.6 × 9.3 mm • 5.5 g  
Materials: Ag plated ceramic block with tin plated brass shield

### Description

Surface mount ceramic bandpass filter with superior rejection, insertion loss, reliability, peak and average power handling compared to other bandpass filter technologies. Also very low group-delay and group-delay variation.

### Electrical Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -55°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	8-10 Watt max
Peak Input Power	-	-	-	80-100 Watt max

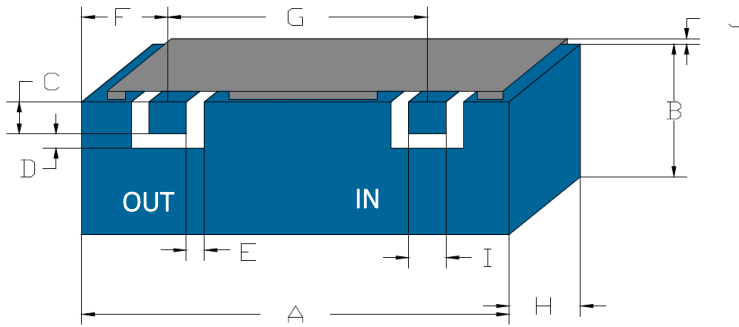
#### Input-Output Response

Passband Insertion Loss (single point)	4248-4352	2.0 dB	2.1 dB max	2.3 dB max
Passband Ripple	4248-4352	0.7 dB	0.8 dB max	0.9 dB max
Passband Return Loss	4248-4352	15 dB	14 dB min	14 dB min
Passband Group Delay	4248-4352	12 ns	15 ns max	15 ns max
Passband Group Delay Variation (max-min)	4248-4352	4.0 ns	5.0 ns max	5.0 ns max
Attenuation:	1-4100	52 dB	47 dB min	47 dB min
	4101-4200	30 dB	29 dB min	27 dB min
	4400-4499	30 dB	29 dB min	27 dB min
	4500-4519	46 dB	45 dB min	45 dB min
	4520-6000	50 dB	47 dB min	47 dB min

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

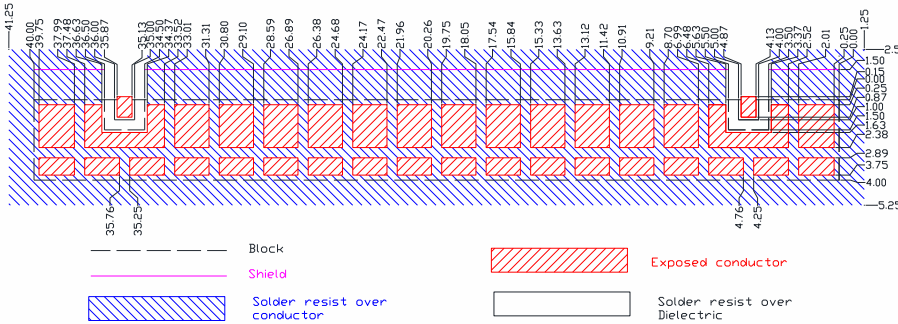
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

### Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	40.0	max
B	4.0	max
C	1.0	0.13
D	0.5	0.13
E	0.5	0.13
F	4.5	0.25
G	31.0	0.13
H	9.3	max
I	1.0	0.13
J	1.4	0.2

### PCB Layout



**IMPORTANT:** Please assure  $\geq 30$  mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the ground plane.

Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

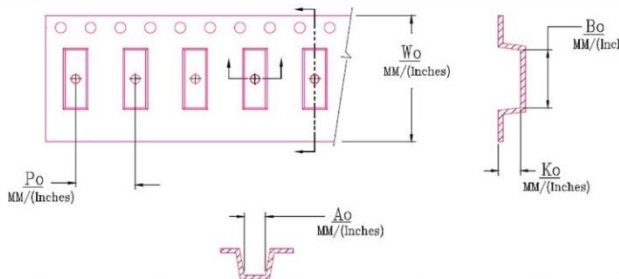
Recommended solder: 6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

### Packaging and Marking

Dimension	Units	Spec.
Reel Diameter	mm	330
Reel Weight	kg	
Reel Quantity	ea.	250

#### Product Marking

CTS  
430  
YWW



W <sub>0</sub>	A <sub>0</sub>	B <sub>0</sub>	K <sub>0</sub>	P <sub>0</sub>
2.205 in 56.0 mm	0.240 in 6.1 mm	1.587 in 40.3 mm	0.378 in 9.6 mm	0.630 in 16.0 mm

### Electrical Response

