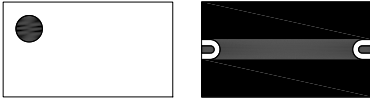


Description

The YCPB190 is a low temperature co-fired ceramic (LTCC) Band Pass Filter designed for high performance in various applications. The small part size allow for high density PCB layout, provide excellent solderability.



Applications

- ◆ 5G mmWave applications
- ◆ Narrow & Wideband amplifiers
- ◆ Factory and Process automation
- ◆ Test Instrumentation
- ◆ Satellite communication

Features

- ◆ 17.7 – 21.2GHz
- ◆ Low Insertion Loss
- ◆ High rejection out-of-band
- ◆ Surface Mount Type

Electrical Specification

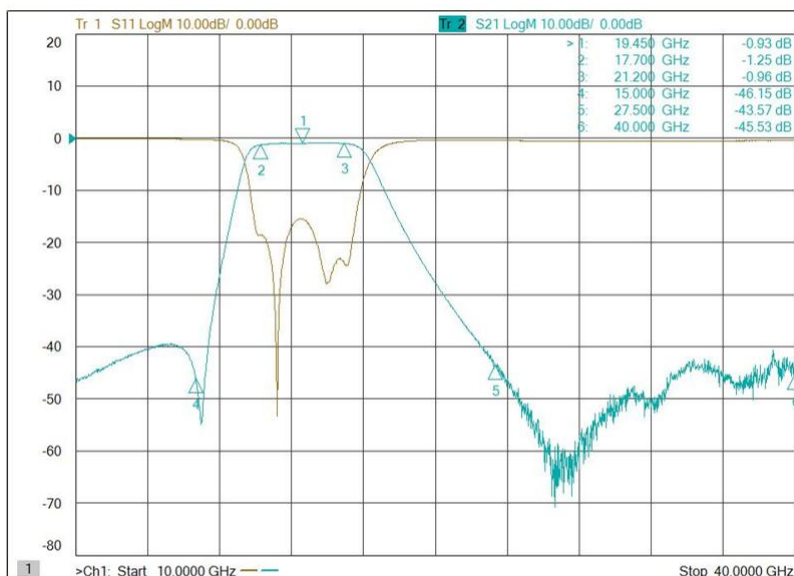
Parameter ¹⁾	Specification			Conditions	Unit
	Min.	Typ.	Max.		
Frequency	17.7	-	21.2	-	GHz
Insertion Loss	-	1.1	1.8	-	dB
VSWR	1.5	-	-	-	dB
Attenuation	30	40	-	@ 8 – 15GHz	dB
	35	42	-	@ 27.5 – 31GHz	dB
	35	46	-	@ 31 – 40GHz	dB
Power Capacity	-	5	-	@ 85°C	W
Group Delay	-	0.5	1		nS
Operation Temperature Range	-55	-	105	-	°C

Notes:

1) Ta = 25°C, 50Ω system, unless otherwise noted.

Performance Plots

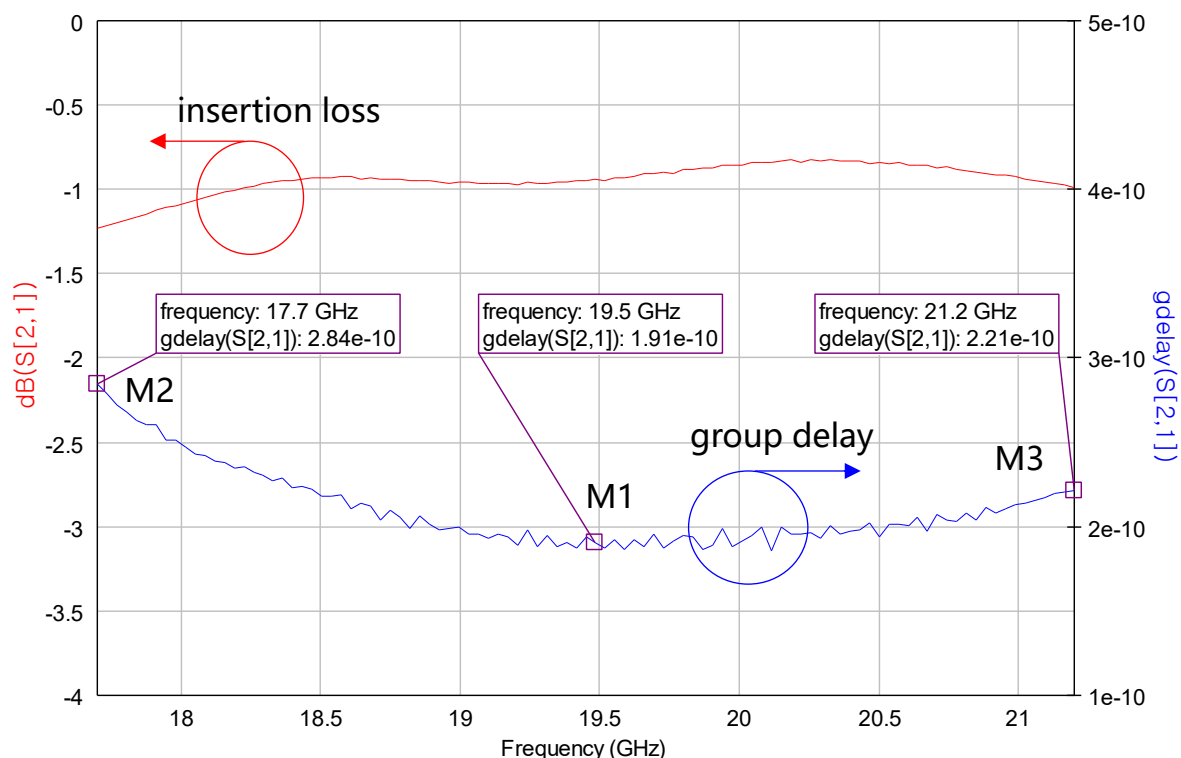
Insertion Loss, Attenuation & Return Loss



Marker	Frequency [GHz]	Value [dB]	Marker	Frequency [GHz]	Value [dB]
M1	19.45	-0.93	M4	15.0	-46.1
M2	17.7	-1.25	M5	27.5	-43.5
M3	21.2	-0.96	M6	40.0	-45.5

Performance Plots : measured data¹⁾

Group Delay & Insertion Loss



Marker	Frequency [GHz]	Value [nS]	Marker	Frequency [GHz]	Value [dB]
M1	29.2	0.19			
M2	27.5	0.28			
M3	31	0.22			

Notes:

1) Measure by placing an RF probe directly on the product itself.

Recommended Operating Condition

Parameter	Min	Typ	Max	Units
Operating Temperature	-55	25	105	°C
Storage Temperature	-20		35	°C

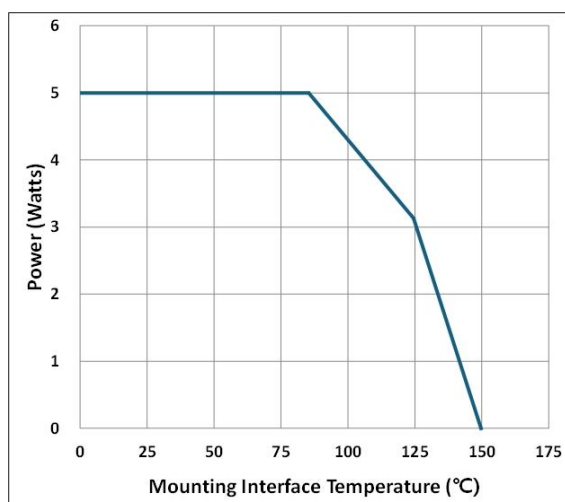
Notes:

1) Storage Temperature Range before soldering in taping package.

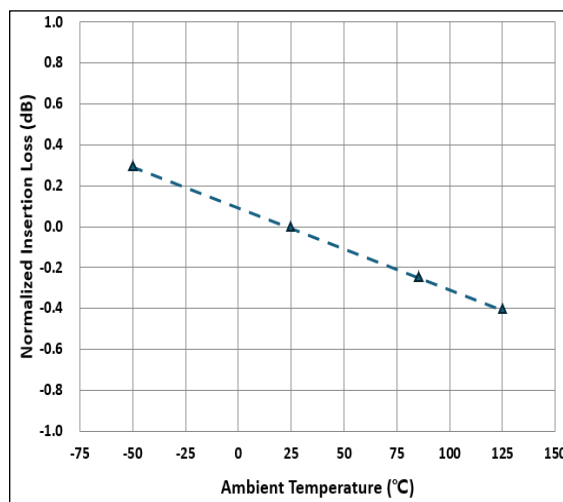
Absolute Maximum Ratings

Parameter	Rating	Units
Input Power (AVG/CW)	5	W

Power Derating Curve

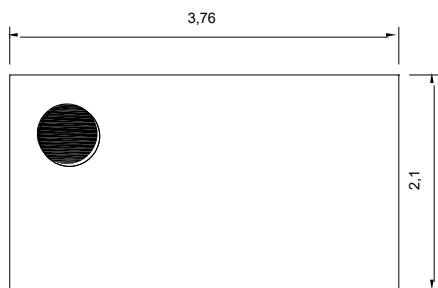


Normalized Insertion Loss Derating Curve

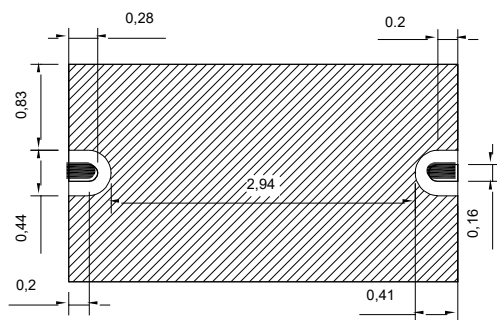


Package Outline Drawing

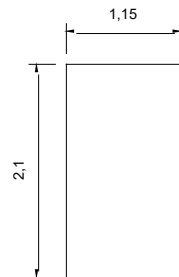
[Top View]



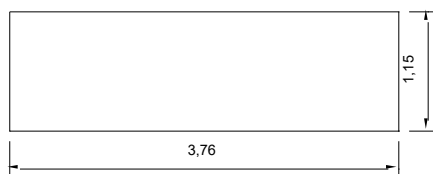
[Bottom View]



[Side View]



[Side View]



Unit : mm
Tolerance : +/- 0.15