# RF/Microwave Featured Products



Filters and Diplexers for LEO/MEO Satellites

Targeted bands with unbeatable performance and size.

Ku Band Tx Bandpass Filter: 10.75-12.75 GHz Ku Band Rx Bandpass Filter: 13.75-14.5 GHz Diplexer: 10.75-12.75 GHz & 13.75-14.5 GHz Diplexer: 10.75-12.75 GHz & 17.25-21.25 GHz

#### **FEATURES:**

- » SMD
- » Space Qualified
- » Operating & storage temp: -55°C to +125°C

### Differential Filters

Filters with 2 inputs, 2 outputs

#### **FEATURES:**

- » Excellent repeatability part-to-part and lot-to-lot
- » Operating & storage temp: -55°C to +125°C

#### L095XG4S Differential Lowpass Filter (SMD)

		PARAMETER	FREQUENCY RANGE (GHz)	SPEC (dB)
	PASSBAND	Maximum Insertion Loss	DC - 9.0	1.5
		Minimum Return Loss	DC - 9.0	10
		Minimum High Side Rejection	11.0 - 20.0	20
	SIZE (nominal)	LxWxH	0.200.x 0.174 x 0	.103 in.

#### **B097QF0S Differential Bandpass Filter (SMD)**

		PARAMETER	FREQUENCY RANGE (GHz)	SPEC (dB)
	PASSBAND	Maximum Insertion Loss	8.0 - 12.0	1
		Minimum Return Loss	8.0 - 12.0	10
		Minimum Low Side Rejection	2.0 - 6.0	20
		Minimum High Side Rejection	16.0 - 20.0	20
	SIZE (nominal)	LxWxH	0.375.x 0.225 x 0.078 in.	

# Broadband Capacitors - Milli-Cap®

Milli-Cap® capacitors are broadband blocking capacitors with performance over a wide range of frequency from 20 MHz – 50 GHz with Insertion Loss less than 0.6 dB.



Each capacitor has very low series Inductance and matches typical  $50\Omega$  transmission lines, available in standard footprints – 0201, 0402 and 0602.

Standard Part Numbers in the table below are available in both Waffle Pack and Tape & Reel Packaging.

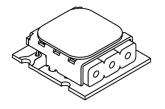
Part Number P21BNL300M5S P4	2BNL820M5S P62BNL820M5S
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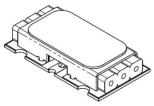
Voltage Rating	50V		
Temperature Coefficient of Capacitance	±15%		
Dissipation Factor	3.50%		
Min. Insulation Resistance (M $\Omega$ )	105		
Frequency Range	20 MHz – 50 GHz		
Part Size	0201	0402	0602



See SLC catalog for additional information

# GPS Filters and Diplexers





L1-band Filter: 1574.4 MHz L2-band Filter: 1227.6 MHz

L1/L2-band Diplexer: 1574.4 & 1227.6 MHz

#### **FEATURES:**

- » Single band and dual band / diplexer configurations
- » Bandwidth from 10 to 200 MHz
- High Q ceramic with low insertion loss
- » Small size, surface mount package



### Wideband 2 – 18GHz Filters





#### **FEATURES:**

- » Integrated wideband solutions for COTS
- » Bond to small size, planar construction
- » SMD & WB configurations available
- » Excellent repeatability
- » Frequency stable over temperature
- » Highpass & Bandpass options
- » Customizable

### Small Parts. Big Solutions.



DLI offers a wide range of Microwave devices based on our unique ceramic materials that allow for maximum performance in the smallest area and performance stability over the full operating temperature range.

This includes filters, power dividers, couplers, resistive devices, gain equalizers and more!



For a listing of capabilities and off-the-shelf catalog parts scan the code

### 3- and 6-Way Power Dividers

DLI's newest series of power dividers can be used to split or combine signals 1:3 or 1:6 with equal power and minimal phase imbalance.

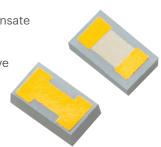


#### **FEATURES:**

- » Compact size, integrated resistors
- » Low excess insertion loss
- » Excellent repeatability part-to-part and lot-to-lot
- » Operating & storage temp: -55°C to +125°C
- » SMD, Space Qualified
- » Characteristic impedance:  $50\Omega$

## Extended Range of Gain Equalizers

Passive gain equalizers compensate for negative gain slope over frequency. Pair them with active or passive components to maximize passband flatness in the analog domain.



#### **FEATURES:**

- » 0302 footprint
- » SMD, Space Heritage
- » Return loss matched over full bandwidth
- » DC to 22 GHz, DC to 45 GHz bands
- » Up to 4dB of slope equalization

Please contact us today at <u>DLlengineering@knowles.com</u> to work directly with our engineering team on custom designs.