

## LG Series



### Gaussian

Frequency Range from 100 Hz to 200 MHz

Application-Specific Designs

SERIES NUMBER	NUMBER OF POLES	INSERTION LOSS at 0.1 x f <sub>-3dBc</sub> dB MAXIMUM	STOPBAND	
			ATTENUATION dBc MINIMUM	FREQUENCY
FREQUENCY -3dBc – 100 Hz to 200 MHz – specify any f within that range				
LG3	3	0.5	-40	8.0 x f <sub>-3dBc</sub>
LG4	4	0.5	-40	6.0 x f <sub>-3dBc</sub>
LG5	5	0.5	-50	6.3 x f <sub>-3dBc</sub>
LG6	6	0.5	-60	6.8 x f <sub>-3dBc</sub>
LG7	7	0.5	-60	6.0 x f <sub>-3dBc</sub>
LG8	8	0.5	-60	5.5 x f <sub>-3dBc</sub>
LG9	9	0.5	-60	5.3 x f <sub>-3dBc</sub>
LG10	10	0.5	-60	5.1 x f <sub>-3dBc</sub>

Note: TTE's products are made in the USA. Application-specific designs are made to order. Typical delivery is 2 weeks. Expedited lead time of 3-5 days is available on many products.

**For RoHS compliant, add "R" to part number. Example: LG10R-10K-1K-1405**

TTE designates a component RoHS-compliant by adding "R" (RoHS) within the part number.

These RoHS components meet the ≤ 0.1% lead requirement and they are compatible with 260°C soldering processes.

#### NOTES:

- Operating Temperature Range: 0°C to +70°C
- Number of Poles: 3-10
- VSWR: 1.5:1 Typical
- Input Power: 20 mW
- Case Type: Refer to **Case Selection Guide**
- Case Options: PCB, SMT, BNC or SMA
- Normalized Response: Refer to **Graphs**
- Product Info: Refer to **LG Series**

#### TERMINATIONS:

50 Ω	100 MHz - 200 MHz
50 Ω or 75 Ω	300 kHz - 100 MHz
1 kΩ - 50 Ω	10 kHz - 300 kHz
10 kΩ - 1 kΩ	100 Hz - 10 kHz

#### STOPBAND FREQUENCY CALCULATIONS:

Using part number LG10-10K-1K-1405, we know that the filter is a 10 pole Gaussian lowpass filter. Scroll down to series number LG10. Moving to the right we find the stopband specification listed as -60dBc minimum at 5.1 x f<sub>-3dBc</sub>. Thus, the -60dBc frequency is at 51 kHz (5.1 x 10 kHz).

#### PART NUMBER DERIVATION:

LG10	*(R)	-10K	-1K	-1405	
1	2	3	4	5	6

- 1) Series, LG
- 2) Number of poles, 10
- \*3) "R" RoHS compliant. Allow for longer lead time.
- 4) f<sub>-3dBc</sub>
- 5) Terminations
- 6) Case selection from the case selection guide.