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TTE Filters Announces its Instec "ML61" EMI/RFI Filter Series Attains MIL-PRF-28861 for Defense Applications

Lowpass, Feed-Through, C-Circuit Filters Suppress Broadband Radio Frequency Interference

Gowanda, N.Y. (USA) - <u>TTE Filters</u>, a designer and manufacturer of RF and microwave filters for high performance applications announces that its Instec Filters brand <u>ML61 EMI/RFI filters</u> are now qualified to the US Department of Defense DLA Land and Maritime's MIL-PRF-28861 military standard. This series will be featured at the <u>2021</u> International Microwave Symposium in Atlanta on June 8-9, booth #1129.

This series can now be used in military electronic systems to suppress and reduce broadband radio frequency interference which would otherwise compromise system performance. These high performance systems are utilized in military communication devices, oscillators, attenuators and low noise amplifiers.

The electrical characteristic ranges of these lowpass, feed-through, C-circuit, solder-in ML61 filters include Rated Voltage from 50Vdc to 200Vdc, Capacitance from 10pF to 15,000pF and Minimum Insertion Loss from 3dB to 60dB. The Operating Temperature is -55°C to +125°C. Refer to the table below for part-specific details.

The parts in this ML61 series are hermetically glass sealed at one end and epoxied at the other end, with the location of the glass seal dependent on the particular configuration. In conformance with the MilSpec, the company can provide these filters in Configuration A (ML610) or Configuration B (ML611). Please refer to the MIL-PRF-28861/12H standard for more information. The main body of each part in this series measures 0.128in. (3.25mm) in diameter while the main body height is 0.110in. (2.79mm) and the overall tip-to-tip length is 0.625in. (15.88mm). More technical information is provided in the ML61 datasheet at TTE's website.

Electrical Characteristics for Instec ML61 per MIL-PRF-28861/12H Military Dash Number*

MIL DASH NO.	INSTEC PART NUMBER	PART CONFIGURATION (per MilSpec)	RATED VOLTAGE (Vdc)	CAPACITANCE (pF)	MINIMUM INSERTION LOSS (dB) *				
					1 MHz	10 MHz	100 MHz	1 GHz	10 GH
-002	ML610-153AS	А	50	15000	7	25	40	50	60
-004	ML610-272BS	А	100	2700	-	10	25	30	60
-006	ML610-502BS	А	100	5000	-	15	30	35	60
-008	ML610-100CS	А	200	10	-	-	-	4	10
-010	ML610-250CS	А	200	25	-	-	-	10	15
-012	ML610-101CS	А	200	100	-	-	3	20	20
-014	ML610-501CS	А	200	500	-	-	15	30	50
-016	ML610-102CS	А	200	1000	-	4	20	31	5
-018	ML611-153AS	В	50	15000	7	25	40	50	60
-020	ML611-272BS	В	100	2700	-	10	25	30	60
-022	ML611-502BS	В	100	5000	-	15	30	35	60
-024	ML611-100CS	В	200	10	-	-	-	4	1(
-026	ML611-250CS	В	200	25	-	-	-	10	1
-028	ML611-101CS	В	200	100	-	-	3	20	20
-030	ML611-501CS	В	200	500	-	-	15	30	5
-032	ML611-102CS	В	200	1000	-	4	20	31	5
-034	ML610-103AS	А	50	10000	4	20	35	40	60
-036	ML611-103AS	В	50	10000	4	20	35	40	60

* Refer to MilSpec for details

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The MilSpec qualification – specifically MIL-PRF-28861/12H Class B – required rigorous electrical, thermal and mechanical testing including solderability, moisture resistance, solvent resistance, corrosion resistance, physical shock, thermal shock, vibration and life testing of this series. Testing was performed at the in-house <u>environmental testing lab</u> of sister company, <u>Gowanda Electronics</u>. This lab is Defense Logistics Agency Land and Maritime approved (in support of internal product qualifications).

NEWS RELEASE

TTE welcomes inquiries regarding the upscreening of additional filters for applications in defense, military and space communities. The company also supports custom designs with extensive experience, proprietary manufacturing equipment, prototyping capabilities and testing facilities.

The ML61 series is manufactured, marked and sold under the Instec Filters name; Instec is now part of TTE. For technical assistance, part pricing or other information please contact TTE at +1-716-532-2234 or <u>sales@tte.com</u>.

Helpful Links:

- ML61 Series Info
- ML61 Series Datasheet
- MIL-PRF-28861/12H MilSpec
- TTE Filters
- <u>TTE's Instec EMI/RFI Filters</u>
- Gowanda Environmental Testing Lab
- Gowanda Electronics
- 2021 International Microwave Symposium

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Note: if the datasheet link does not work correctly (due to updating of the PDF file) please use the Series Info link to navigate to the current PDF.