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20-010 – Passive Surface Mount Block, Ceramic Bandpass Filter

	Information we need from your organization
Title	Passive Surface Mount Block, Ceramic Bandpass Filter
Description	Provide a Passive Surface Mount Block, Ceramic Bandpass Filter used specifically as a RF Bandpass Filter for the Global Positioning System Signal. The Filter is intended for use in an Automotive/Industrial environment; the thermal cycle, life, and humidity tests described are a reasonable approximation to this environment and are a very accurate representation of the reliability requirements of the module of which this device is but a single component.
Focus Area(s)	**Electrical Requirements - Maximum Ratings**

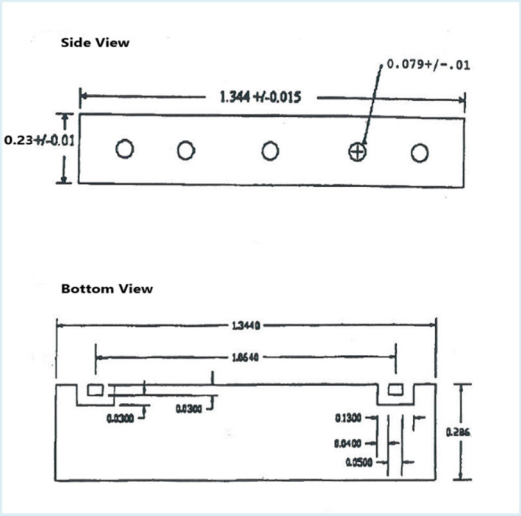
Characteristic	Symbol	Value	Units
Operating Ambient Temperature Range	T_A	-40 to +105	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C
Lead Solder Temperature	T_L	+300	°C
Bandwidth, 3dB	BW	20 minimum	MHz
Bandwidth, 40dB	BW	350	MHz
Insertion Loss + 10MHz from Center Frequency	I_L	1.2	dB

Electrical Parameters /Design Characteristics

Characteristic	Symbol	T_A=-40^{0}C		T_A=+25^{0}C		T_A=+105^{0}C		
		Min	Max	Min	Max	Min	Max	
Input Impedance	Z_I	--	50 Nom	--	50 Nom	--	50 Nom	W
Output Impedance	Z_O	--	50 Nom	--	50 Nom	--	50 Nom	W
Return Loss +10 MHz from Center Frequency	R_L	12	--	12	--	12	--	dB

Insertion Loss **+10 MHz from center frequency**	I_L	--	1.2	--	1.2	--	1.2	dB
Ripple passband **+10 MHz from center frequency**		--	0.5	--	0.5	--	0.5	dB
Center frequency	F_0	1571.42	1579.42	1571.42	1579.42	1571.42	1579.42	MHz
Higher Order Modes		3.0	--	3.0	--	3.0	--	GHZ
Bandwidth , 3dB		20	--	20	--	20	--	MHz
Bandwidth, 40 dB		--	350	--	350	--	350	MHz

Dimensions and Configurations



VERTICAL DIMENSION TOLERANCE IS +0 005 UNLESS OTHERWISE NOTED.

HORIZONTAL DIMENSION TOLERANCE IS ± 0.010 UNLESS OTHERWISE NOTED.

Mechanical Requirements - Material: The body must be ceramic, with deposited silver, and trimmed to proper frequency.

Markings

The devices must be marked with as much identifying information as space allows with the information prioritized as follows:

· Supplier's Generic Number or the last five characters of the ÄIEG part number.

· EIA date code.

Manufacturer's symbol or EIA supplier's code.

Keyword(s)	Passive Surface Mount Block, Ceramic Bandpass Filter, RF Bandpass Filter
Response Instructions & Date	**Responses will be accepted thru 5/11/2020** General Dynamics Mission Systems Innovation Sourcing Network™ (ISN) is seeking respondents to the following TechScout request. This TechScout request does not contain U.S. export controlled technical data or proprietary information, and is approved by General Dynamics Mission Systems for public release and is in the public domain. **Send email response including product information in the form of a datasheet to techscout@gd-ms.com** **TechScout responses should not contain any export controlled technical data or proprietary information.** *In your response, please identify whether you or your company are located outside the U.S. If located outside the U.S., please identify any home country export controls that will apply to your response. If located in the U.S., please identify whether your company employs non-U.S. manufacturing or design facilities, or foreign nationals in your response.* Any subsequent interaction between General Dynamics Mission Systems and a non-U.S. based TechScout respondent, or a U.S. based TechScout Respondent with non-U.S. manufacturing, design or foreign national employees must be reviewed and approved in advance for U.S. Export Compliance requirements by the General Dynamics Mission Systems Office of Import/Export Compliance prior to any such interaction. General Dynamics Mission Systems will not be responsible for, nor will it pay for any expense, which may be incurred by the supplier in preparation of its TechScout response. Supplier acknowledges and agrees that this TechScout request does not commit General Dynamics Mission Systems to any course of action, including but not limited to, any purchase of supplier's products or services or any future involvement with supplier. The issuance of this request does not bind General Dynamics Mission Systems to accept or review any response, in whole or in part. Subsequent pursuit or action on the part of General Dynamics Mission Systems or the TechScout respondent may require the respondent to comply with aspects of the U.S. International Traffic in Arms Regulations (ITAR) or the U.S. Export Administration Regulations (EAR) including a need to register, or apply for or execute licenses or other authorizations. Firms or individuals from countries subject to U.S. sanctions are not eligible to participate in this TechScout request. (U.S. Sanctions information may be found at: https://www.treasury.gov/resource center/sanctions/Programs/Pages/Programs.aspx). These sanctions apply comprehensively to Iran, Syria, Sudan, Cuba, and North Korea. In addition, Firms or individuals that appear on the U.S. Government's Consolidated Screening List (available at http://export.gov/ecr/eg_main_023148.asp) are not eligible to participate in this TechScout request."
Questions	Email the Innovation Sourcing Network with any questions or required clarification at techscout@gd-ms.com.