

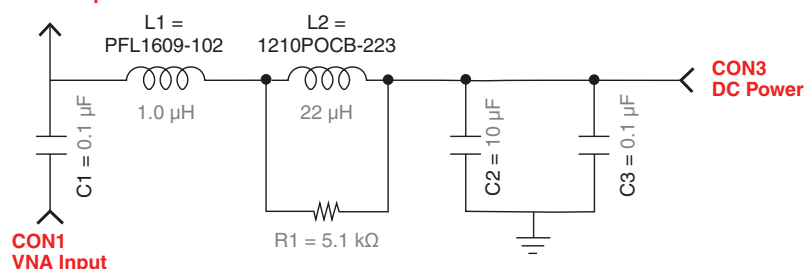
# PoC Filter Solution – SMD-POC-115

- PoC solution for 2 MHz – 3.5 GHz applications
- 2-Part PoC Solution for GMSL3
- Low Profile – less than 2 mm max height
- 125°C ambient applications: 300 mA
- 105°C ambient applications: 400 mA
- 85°C ambient applications: 450 mA

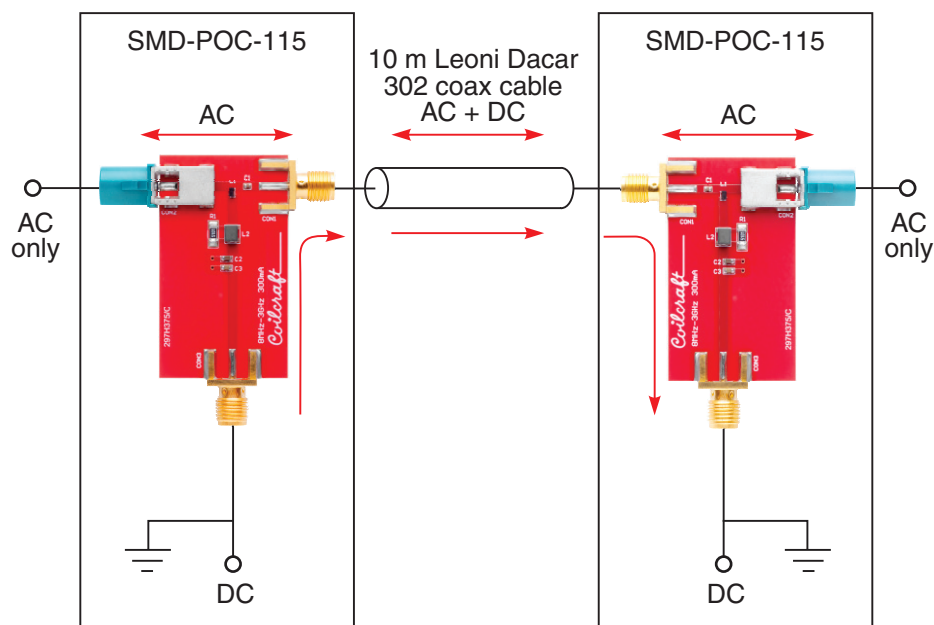
| Inductors                 | DCR<br>max.<br>(Ohms) | Max.<br>Area<br>(mm <sup>2</sup> ) | Isat (A) 30% |      |       |       | Irms (A) |      |       |       |
|---------------------------|-----------------------|------------------------------------|--------------|------|-------|-------|----------|------|-------|-------|
|                           |                       |                                    | 25°C         | 85°C | 105°C | 125°C | 25°C     | 85°C | 105°C | 125°C |
| PFL1609-102 (1 $\mu$ H)   | 0.23                  | 1.93                               | 0.76         | 0.59 | 0.53  | 0.47  | 0.85     | 0.83 | 0.64  | 0.46  |
| 1210POCB-223 (22 $\mu$ H) | 0.86                  | 8.81                               | 0.52         | 0.45 | 0.43  | 0.41  | 0.66     | 0.60 | 0.40  | 0.33  |
| <b>Totals:</b>            | <b>1.09</b>           | <b>10.74</b>                       |              |      |       |       |          |      |       |       |

## Schematic

VNA Output



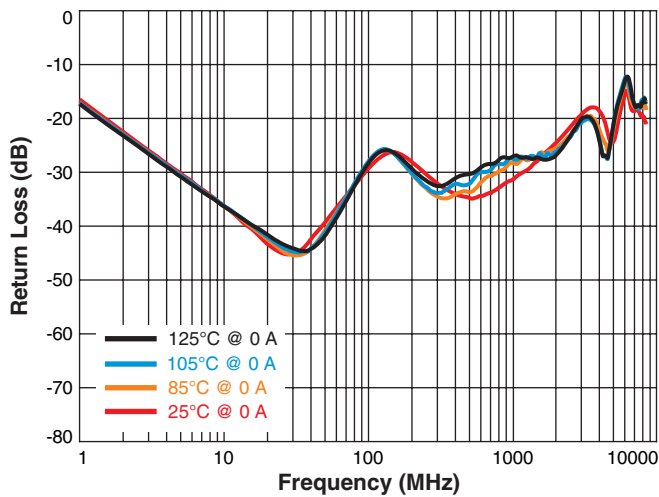
## Total Channel Test Setup



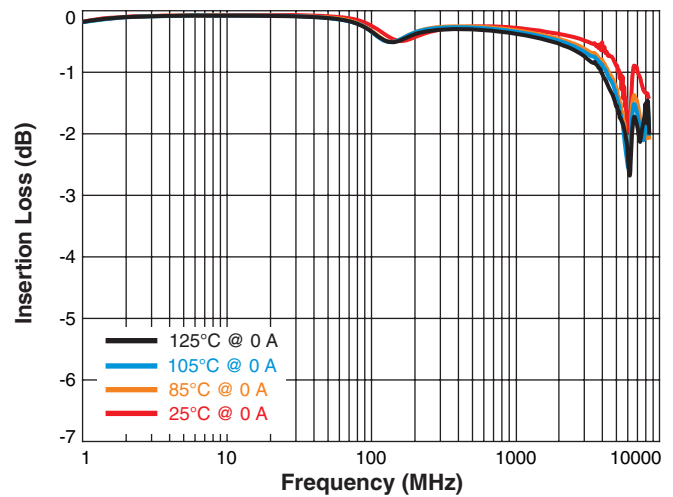
\* Solutions measured in a total channel configuration. 2 PCB's with PoC filters on each with a 10 m Leoni Dacar 302 cable interconnect.

# PoC Filter Solution – SMD-POC-115

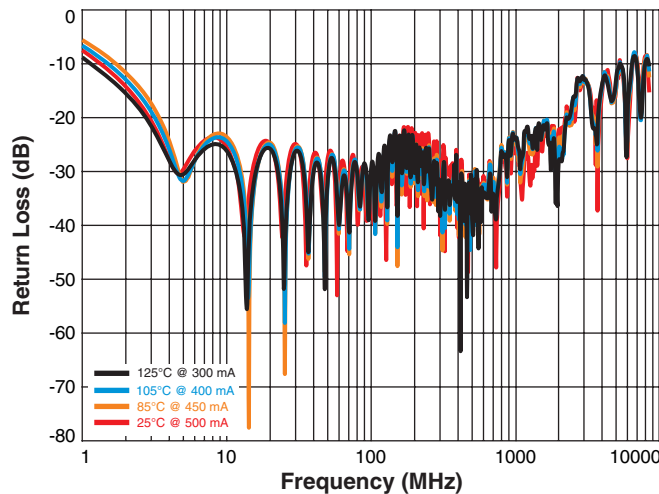
**Return Loss (S11, Single board no current)**



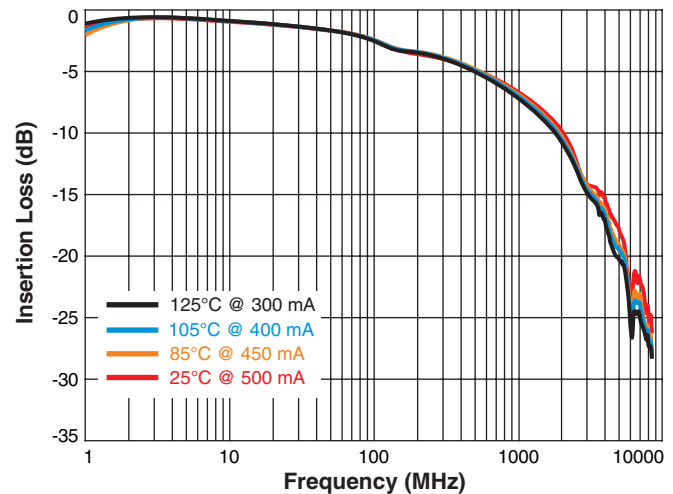
**Insertion Loss (S21, Single board no current)**



**Return Loss (S11, Total Channel Measurements\*)**



**Insertion Loss (S21, Total Channel Measurements\*)**



\* Solutions measured in a total channel configuration. 2 PCB's with PoC filters on each with a 10 m Leoni Dacar 302 cable interconnect.

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