



Typical Characteristics ON EQL-26G40G-+7DB-292FF

PMI MODEL NUMBER EQL-26G40G-+7DB-292FF IS A PASSIVE AMPLITUDE EQUILIZER PROVIDING THE FOLLOWING SPECIFICATIONS. THIS EQUILIZER HAS A POSITIVE SLOPE.



April 20, 2022

Designed By:
PMI Engineering

Technical Drawings:
Edward Plasket

Tested and Reported By:
Alfredo Lopez



Typical Characteristics ON EQL-26G40G-+7DB-292FF

Outline Drawing

DESCRIPTION:

PMI MODEL NUMBER EQL-26G40G-+7DB-292FF IS A PASSIVE AMPLITUDE EQUALIZER PROVIDING THE FOLLOWING SPECIFICATIONS. THIS EQUALIZER HAS A POSITIVE SLOPE.

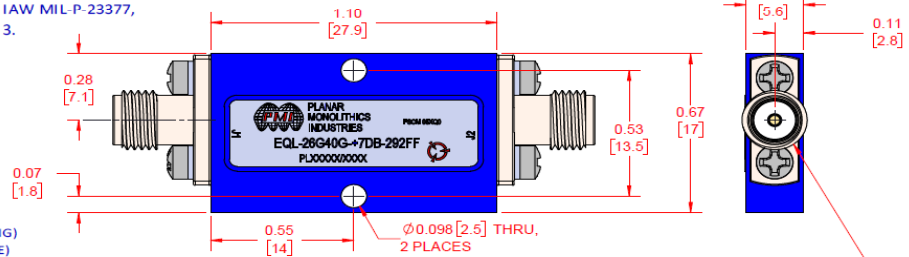
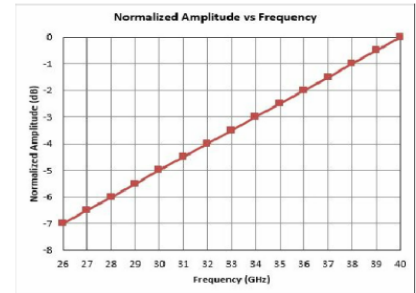
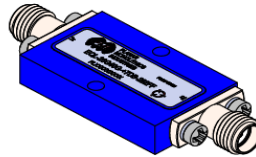
SPECIFICATIONS:

- FREQUENCY: 26.0 GHz TO 40.0 GHz
- MAXIMUM INPUT POWER: 0.5 WATTS CW
- VSWR: 2.0 :1 MAX
- INSERTION LOSS @ 40.0 GHz: 4.5 dB TYP
4.75dB MAX
- SLOPE: 0.5 ± 0.1 dB/GHz
- AMPLITUDE ACCURACY: ±0.5 dB (COMPARED TO BEST FIT STRAIGHT LINE)
- CONNECTORS: 2.92 mm FEMALE
- FINISH: BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -40°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



2.92 mm FEMALE (2)
PMI CONFIDENTIAL AND PROPRIETARY

| APPROVALS | DATE | TITLE |
|------------------------|-----------|-----------------------|
| DESIGNED E. PLASKET | 1/19/2012 | OUTLINE |
| DRAWN | | EQL-26G40G-+7DB-292FF |
| REVISION | | REV NO. 05XQ0 |
| | | 27043220 |
| | | SCALE 3:1 |
| | | SHEET 1 OF 1 |



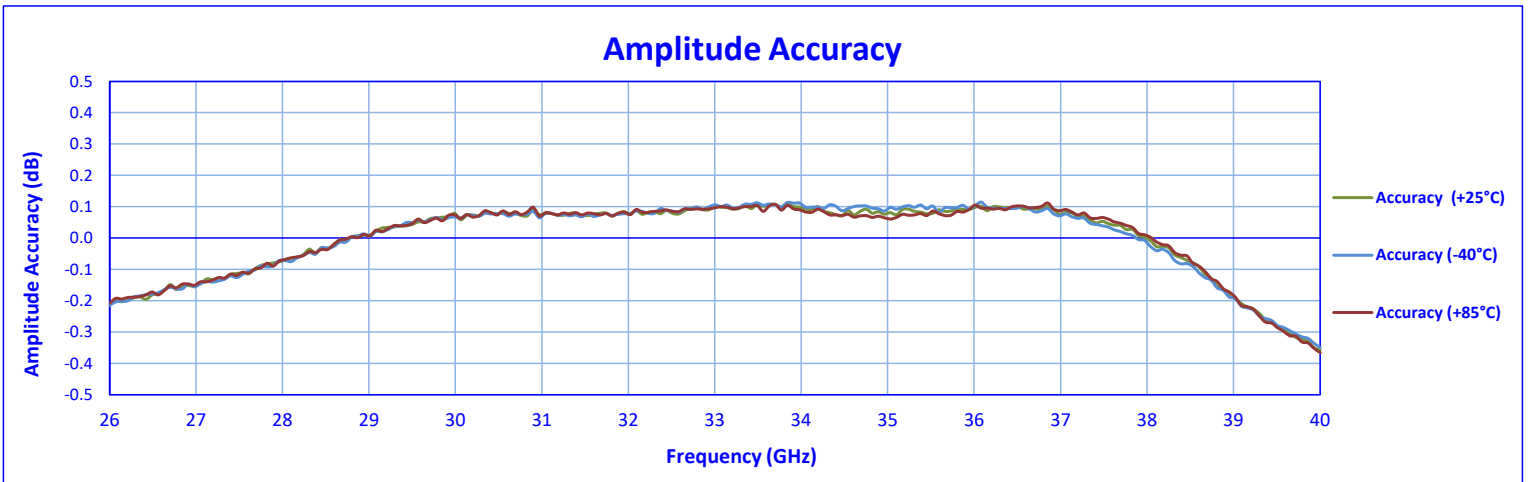
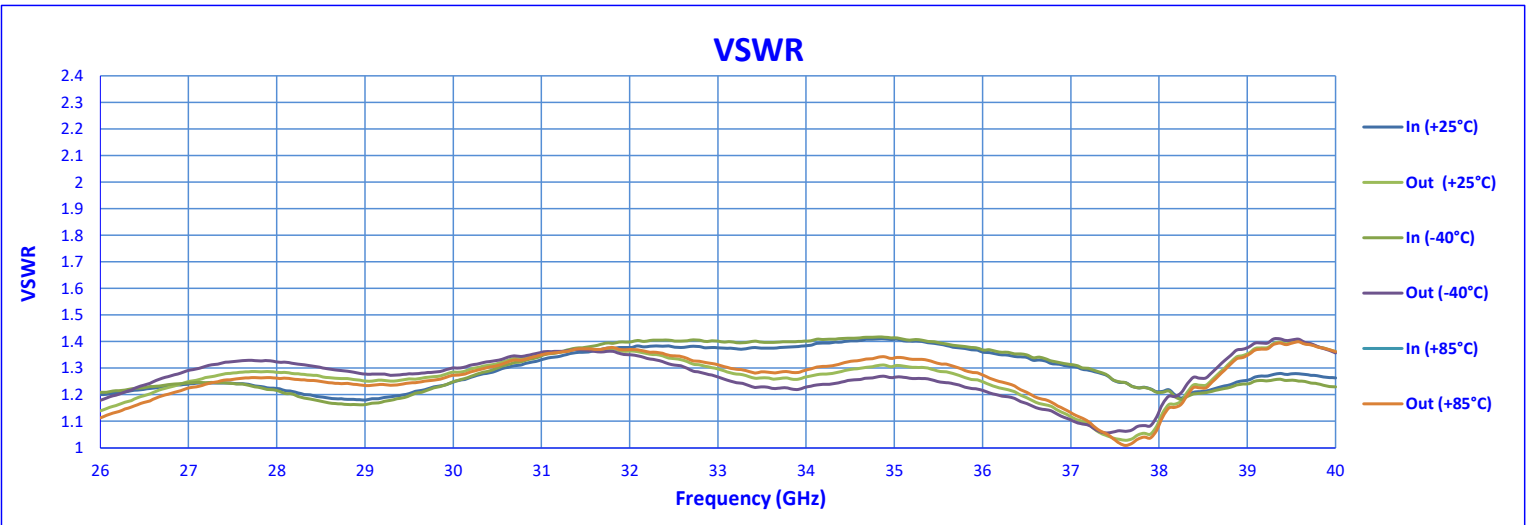
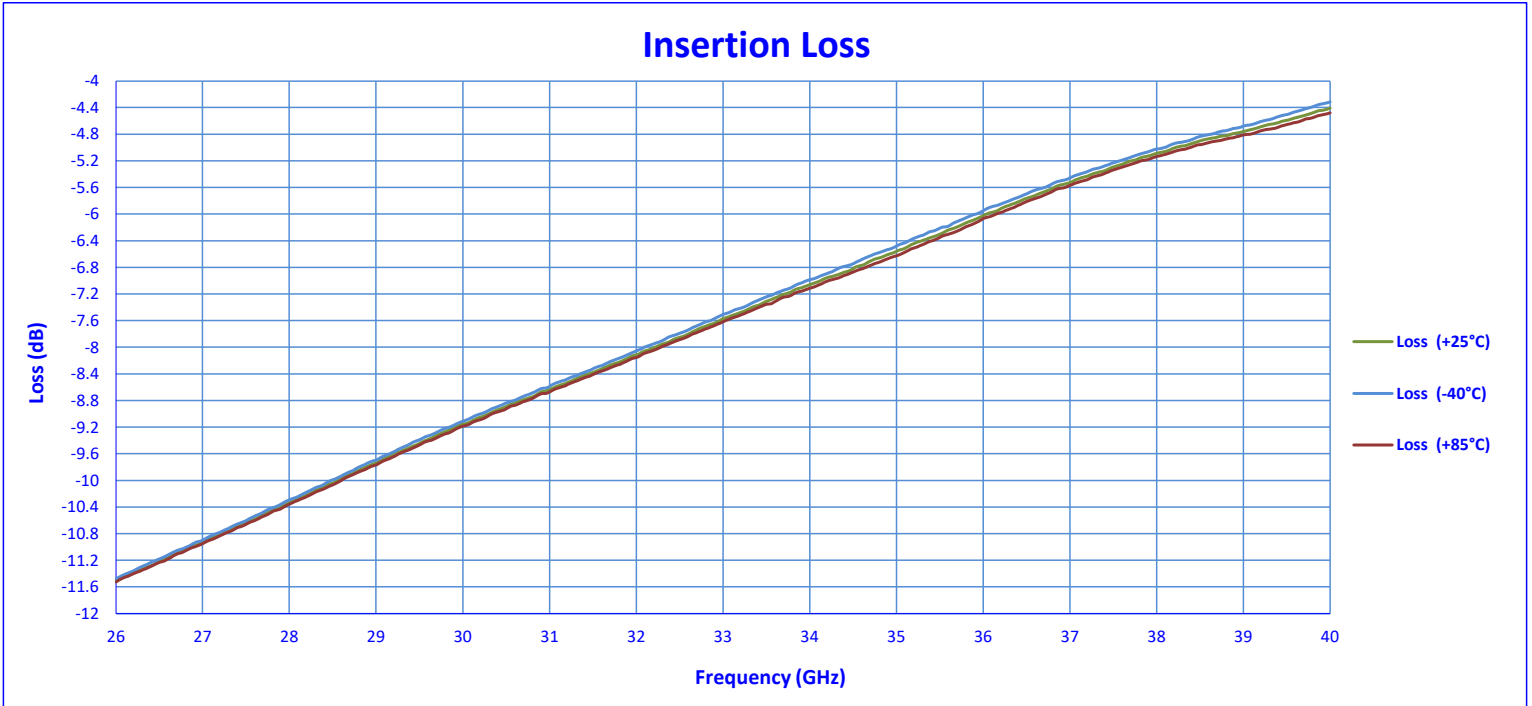
Typical Characteristics ON EQL-26G40G-+7DB-292FF

Technical Specifications

| TEST ITEM NO. | PARAMETERS | SPECIFIED VALUE | TEST RESULTS | | | QA QC |
|---------------|---|------------------------------|--------------------------------|--------------------------------|--------------------------------|-------|
| | | | +25°C | -40°C | +85°C | |
| 1 | Frequency Range: | 26.0 to 40.0 GHz | 26.0 to 40.0 GHz | 26.0 to 40.0 GHz | 26.0 to 40.0 GHz | |
| 2 | Maximum Input Power: | 0.5 Watts CW | Pass 0.5 Watts CW See Graph | Pass 0.5 Watts CW See Graph | Pass 0.5 Watts CW See Graph | |
| 3 | VSWR: | 2.0 :1 Max. | 1.41 :1 See Graph | 1.42 :1 See Graph | 1.41 :1 See Graph | |
| 4 | Insertion Loss: @ 40.0 GHz | 4.50 dB Typ. 4.75 dB Max. | 4.4 dB See Graph | 4.31 dB See Graph | 4.48 dB See Graph | |
| 5 | Slope: | 0.5 ±0.1 dB/GHz | 0.51 dB/GHz | 0.51 dB/GHz | 0.5 dB/GHz | |
| 6 | Amplitude Accuracy: (Compared to best fit straight line) | ±0.5 dB | 0.11 dB Max. | 0.11 dB Max. | 0.11 dB Max. | |
| | | | -0.36 dB Min. | -0.35 dB Max. | -0.37 dB Max. | |
| | | | See Graph | See Graph | See Graph | |



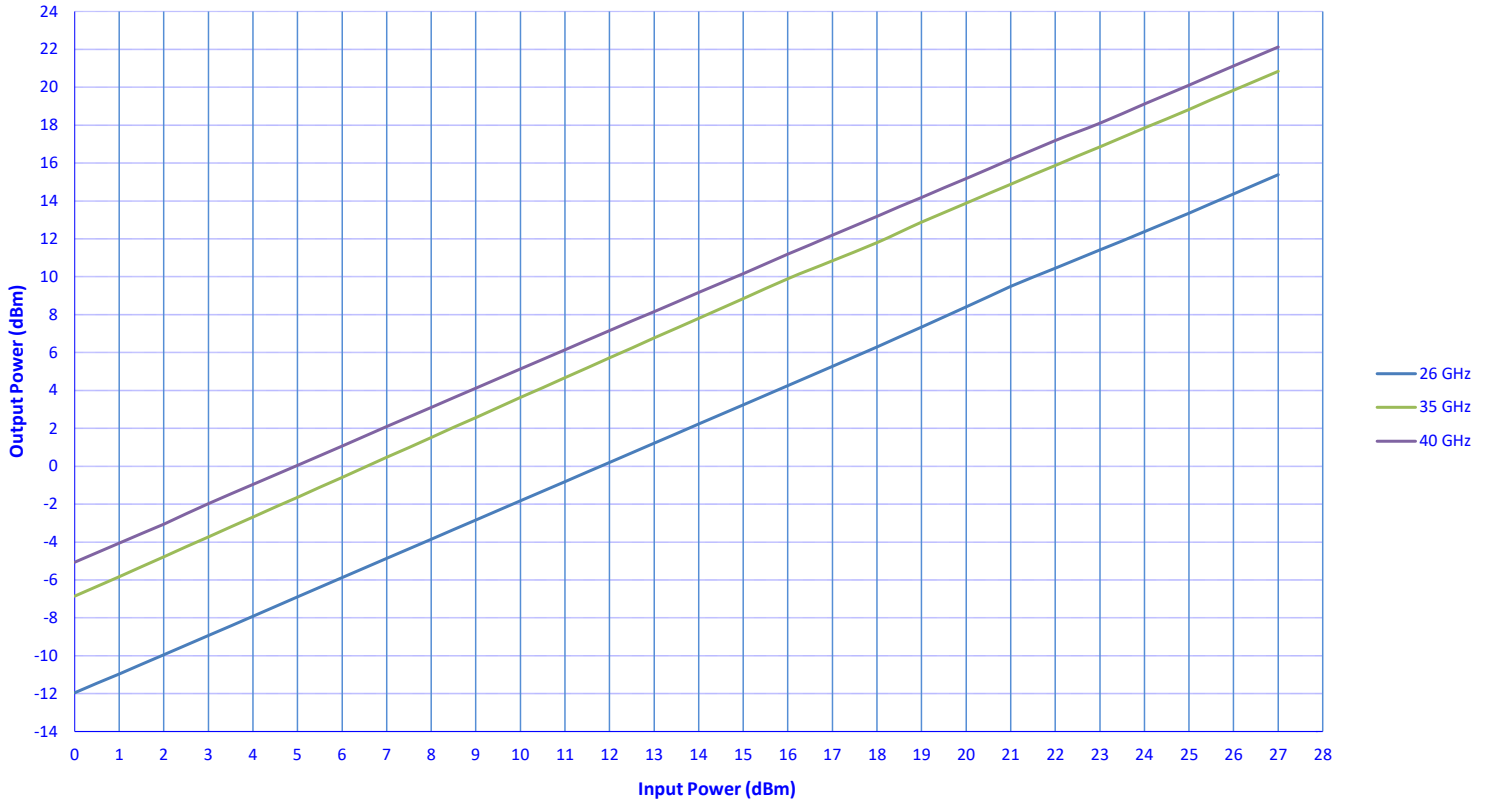
SUMMARY TEST DATA ON EQL-26G40G-+7DB-292FF





SUMMARY TEST DATA ON EQL-26G40G-+7DB-292FF

High Power Graph (CW)



| 26 GHz | | | | 35 GHz | | | | 40 GHz | | | |
|-------------------|--------------------|-----------|------------------|-------------------|--------------------|-----------|------------------|-------------------|--------------------|-----------|------------------|
| Input Power (dBm) | Output Power (dBm) | Loss (dB) | Compression (dB) | Input Power (dBm) | Output Power (dBm) | Loss (dB) | Compression (dB) | Input Power (dBm) | Output Power (dBm) | Loss (dB) | Compression (dB) |
| 0 | -11.953 | 11.953 | 0.000 | 0 | -6.851 | 6.851 | 0.000 | 0 | -5.066 | 5.066 | 0.000 |
| 1 | -10.948 | 11.948 | 0.005 | 1 | -5.817 | 6.817 | 0.034 | 1 | -4.057 | 5.057 | 0.009 |
| 2 | -9.940 | 11.940 | 0.013 | 2 | -4.777 | 6.777 | 0.074 | 2 | -3.045 | 5.045 | 0.021 |
| 3 | -8.923 | 11.923 | 0.030 | 3 | -3.723 | 6.723 | 0.128 | 3 | -1.968 | 4.968 | 0.098 |
| 4 | -7.909 | 11.909 | 0.044 | 4 | -2.677 | 6.677 | 0.174 | 4 | -0.954 | 4.954 | 0.112 |
| 5 | -6.893 | 11.893 | 0.060 | 5 | -1.631 | 6.631 | 0.220 | 5 | 0.061 | 4.939 | 0.127 |
| 6 | -5.878 | 11.878 | 0.075 | 6 | -0.582 | 6.582 | 0.269 | 6 | 1.075 | 4.925 | 0.141 |
| 7 | -4.861 | 11.861 | 0.092 | 7 | 0.469 | 6.531 | 0.320 | 7 | 2.090 | 4.910 | 0.156 |
| 8 | -3.846 | 11.846 | 0.107 | 8 | 1.524 | 6.476 | 0.375 | 8 | 3.108 | 4.892 | 0.174 |
| 9 | -2.835 | 11.835 | 0.118 | 9 | 2.577 | 6.423 | 0.428 | 9 | 4.123 | 4.877 | 0.189 |
| 10 | -1.823 | 11.823 | 0.130 | 10 | 3.627 | 6.373 | 0.478 | 10 | 5.136 | 4.864 | 0.202 |
| 11 | -0.815 | 11.815 | 0.138 | 11 | 4.677 | 6.323 | 0.528 | 11 | 6.148 | 4.852 | 0.214 |
| 12 | 0.198 | 11.802 | 0.151 | 12 | 5.723 | 6.277 | 0.574 | 12 | 7.157 | 4.843 | 0.223 |
| 13 | 1.212 | 11.788 | 0.165 | 13 | 6.767 | 6.233 | 0.618 | 13 | 8.165 | 4.835 | 0.231 |
| 14 | 2.224 | 11.776 | 0.177 | 14 | 7.813 | 6.187 | 0.664 | 14 | 9.168 | 4.832 | 0.234 |
| 15 | 3.239 | 11.761 | 0.192 | 15 | 8.851 | 6.149 | 0.702 | 15 | 10.176 | 4.824 | 0.242 |
| 16 | 4.256 | 11.745 | 0.208 | 16 | 9.899 | 6.101 | 0.750 | 16 | 11.191 | 4.809 | 0.257 |
| 17 | 5.275 | 11.725 | 0.228 | 17 | 10.846 | 6.154 | 0.697 | 17 | 12.194 | 4.806 | 0.260 |
| 18 | 6.303 | 11.697 | 0.256 | 18 | 11.811 | 6.189 | 0.662 | 18 | 13.191 | 4.809 | 0.257 |
| 19 | 7.344 | 11.656 | 0.297 | 19 | 12.885 | 6.115 | 0.736 | 19 | 14.191 | 4.809 | 0.257 |
| 20 | 8.406 | 11.594 | 0.359 | 20 | 13.882 | 6.118 | 0.733 | 20 | 15.188 | 4.812 | 0.254 |
| 21 | 9.487 | 11.513 | 0.440 | 21 | 14.887 | 6.113 | 0.738 | 21 | 16.189 | 4.811 | 0.255 |
| 22 | 10.452 | 11.548 | 0.405 | 22 | 15.877 | 6.123 | 0.728 | 22 | 17.190 | 4.810 | 0.256 |
| 23 | 11.417 | 11.583 | 0.370 | 23 | 16.857 | 6.143 | 0.708 | 23 | 18.101 | 4.899 | 0.167 |
| 24 | 12.372 | 11.628 | 0.325 | 24 | 17.845 | 6.156 | 0.695 | 24 | 19.112 | 4.888 | 0.178 |
| 25 | 13.367 | 11.633 | 0.320 | 25 | 18.832 | 6.168 | 0.683 | 25 | 20.113 | 4.887 | 0.179 |
| 26 | 14.372 | 11.628 | 0.325 | 26 | 19.850 | 6.151 | 0.700 | 26 | 21.124 | 4.876 | 0.190 |
| 27 | 15.378 | 11.623 | 0.330 | 27 | 20.837 | 6.163 | 0.688 | 27 | 22.125 | 4.875 | 0.191 |