

DESCRIPTION:

PMI MODEL: IRMX-8G12G-50-33-SFF IS AN IMAGE REJECT MIXER OPERATING OVER THE 8.0 TO 12.0 GHz FREQUENCY RANGE. THIS MODEL OFFERS A TYPICAL IMAGE REJECTION OF 33 dB WHILE LIMITING THE NOISE FIGURE TO A MAXIMUM OF 9.5 dB. THIS PRODUCT IS CONFIGURED FOR LOW SIDE CONVERSION, IF = RF - LO, USB

SPECIFICATIONS:

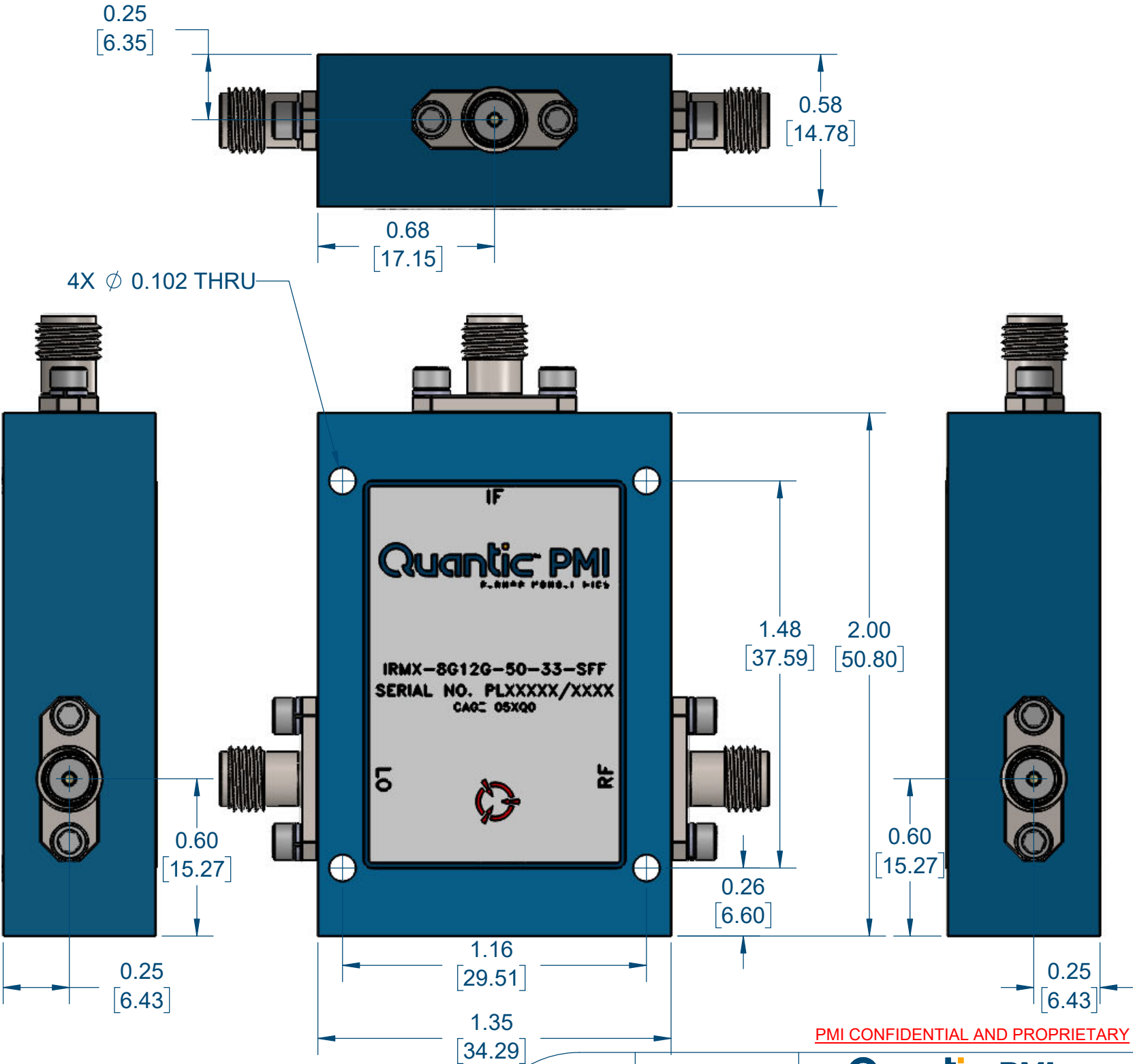
- LO INPUT FREQUENCY RANGE:..... 8.0 TO 12.0 GHz
- RF INPUT FREQUENCY RANGE:..... 8.03 TO 12.09 GHz
- IF OUTPUT FREQUENCY RANGE:..... 30 TO 90 MHz
- LO POWER:..... +14 dBm MIN  
+15 dBm TYP  
+17 dBm MAX
- LO VSWR:..... 1.4:1 TYP
- RF VSWR:..... 3.0:1 TYP
- IF OUTPUT IMPEDANCE:..... 50 Ω
- CONVERSION LOSS:..... 7.5 dB TYP  
10.5 dB MAX
- NOISE FIGURE:..... 8 dB TYP  
9.5 dB MAX
- INPUT IP3:..... +23 dBm TYP (2-TONE, Δf = 1 MHz)
- INPUT P1dB:..... +14 dBm TYP
- LO-RF ISOLATION (NO RF INPUT):..... 40 dB MIN  
50 dB TYP
- LO-IF ISOLATION (NO RF INPUT):..... 55 dB TYP
- IMAGE REJECTION (OVER IF BAND):..... 23 dB MIN  
33 dB TYP
- LO/RF INPUT POWER W/O DAMAGE:..... +23 dBm MAX
- CONNECTORS:..... SMA FEMALE
- SIZE:..... 50.80mm x 34.29mm x 14.78mm  
2.00" x 1.35" x 0.58"
- FINISH:..... PAINTED BLUE

ENVIRONMENTAL RATINGS:

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

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

| ZONE | REV. | DESCRIPTION      | DATE      | APPROVED |
|------|------|------------------|-----------|----------|
|      | A1   | ORIGINAL RELEASE | 1/16/2024 |          |
|      | A2   | ECN #24-0125     | 4/30/2024 |          |
|      | B1   | ECN # 25-0145    | 5/12/2025 |          |



PMI CONFIDENTIAL AND PROPRIETARY

|                                                                                                                                        |  |                                                             |  |                   |  |                                          |  |              |                   |                     |            |
|----------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------|--|-------------------|--|------------------------------------------|--|--------------|-------------------|---------------------|------------|
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>TOLERANCES ARE:<br>FRACTIONS DECIMALS ANGLES<br>± .XX ± 0.02 ±<br>XXX ± 0.01 |  | APPROVALS<br>DATE<br>DRAWN<br>M.LAULIS<br>REDRAWN<br>ISSUED |  | DATE<br>1/16/2024 |  | TITLE<br>OUTLINE<br>IRMX-8G12G-50-33-SFF |  | SIZE<br>B    | FSCM NO.<br>05XQ0 | DWG NO.<br>27030800 | REV.<br>B1 |
|                                                                                                                                        |  |                                                             |  |                   |  | SCALE 2:1                                |  | SHEET 1 OF 1 |                   |                     |            |