

DESCRIPTION

AMCOM's AM000505XD-P3 is a high IP3 passive double balanced mixer operates with LO drive level range of +7dBm to +13dBm.



FEATURES

- LO/RF: 0.5-500MHz
- IF: DC-500MHz
- LO Level: +10dBm
- Conversion Loss: 6.5dB
- RF Input: Up to +5dBm
- IP3: +15dBm
- SMA Connector

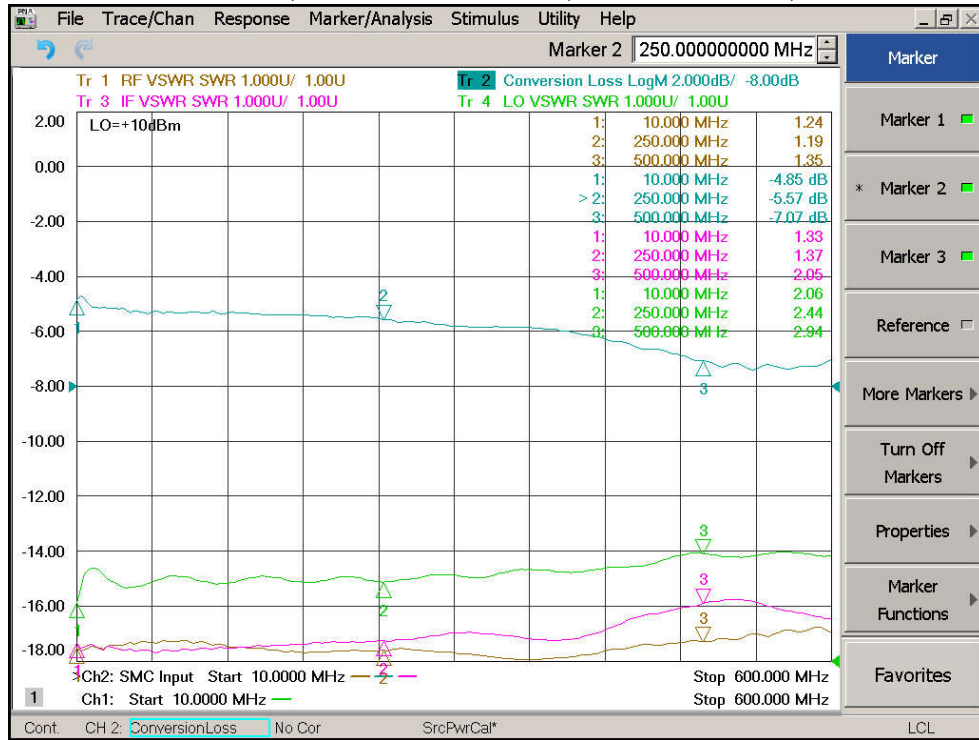
APPLICATIONS

- Telecom Infrastructure
- Military & Aerospace
- VSAT
- Test & Instrumentation
- Radar
- Communication

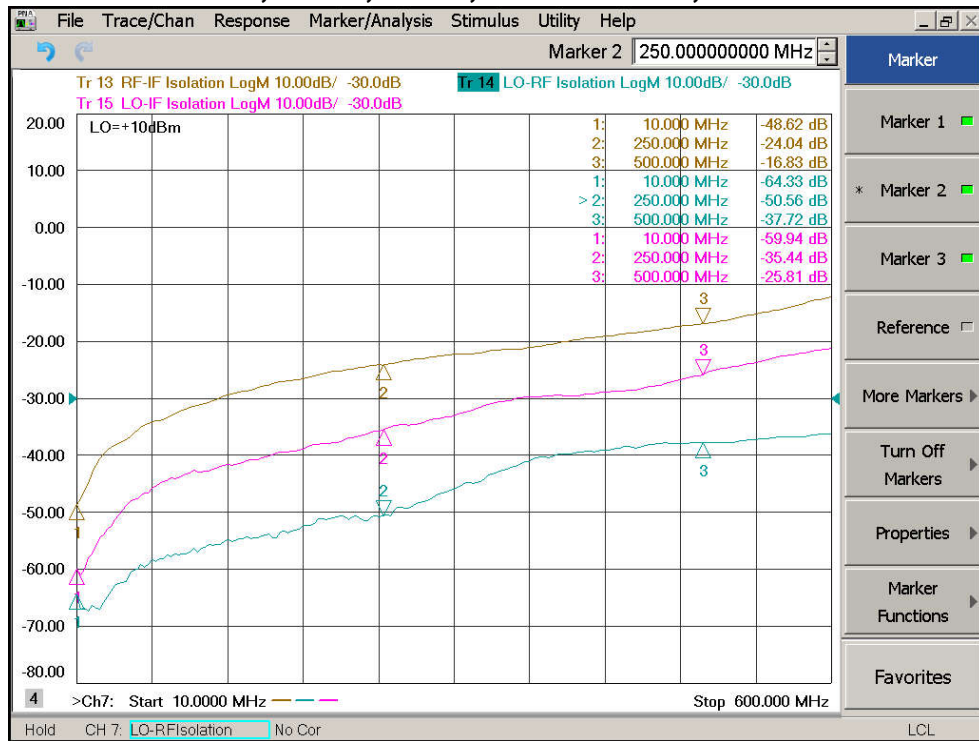
Electrical Specifications @ +25 °C, IF=10MHz, LO=+10dBm, 50 Ω

| Parameter | Unit | Minimum | Typical | Maximum |
|----------------------|------|---------|---------|---------|
| Frequency Range | | | | |
| LO/RF | MHz | 0.5 | | 500 |
| IF | MHz | DC | | 500 |
| Conversion Loss | dB | | 6.8 | 8.5 |
| LO-RF Isolation | | | | |
| 0.5-5 MHz | dB | 50 | 65 | |
| 5-250MHz | dB | 35 | 55 | |
| 250-500MHz | dB | 26 | 47 | |
| LO-IF Isolation | | | | |
| 0.5-5MHz | dB | 40 | 52 | |
| 5-250MHz | dB | 22 | 45 | |
| 250-500MHz | dB | 20 | 34 | |
| RF VSWR | | | 1.5:1 | 2.0:1 |
| IF VSWR | | | 1.5:1 | 2.5:1 |
| RF Input Power up to | dBm | +3 | +5 | |
| IP3 (Center Band) | dBm | +12 | +15 | |

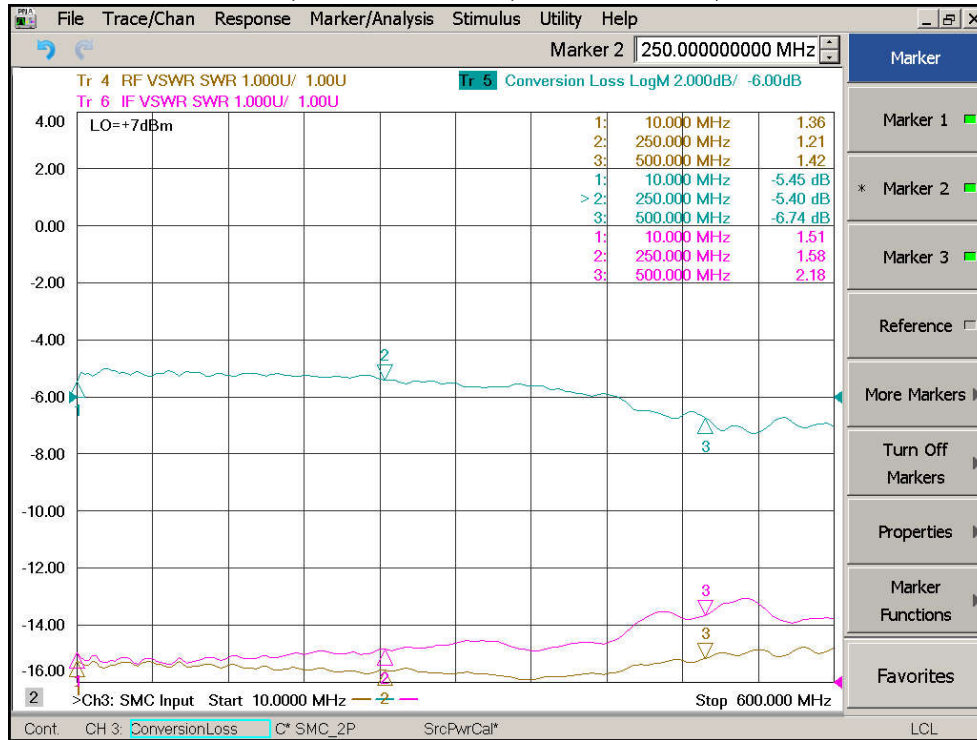
Conversion Loss, RF/IF/LO VSWR, LO=+10dBm, IF=10MHz



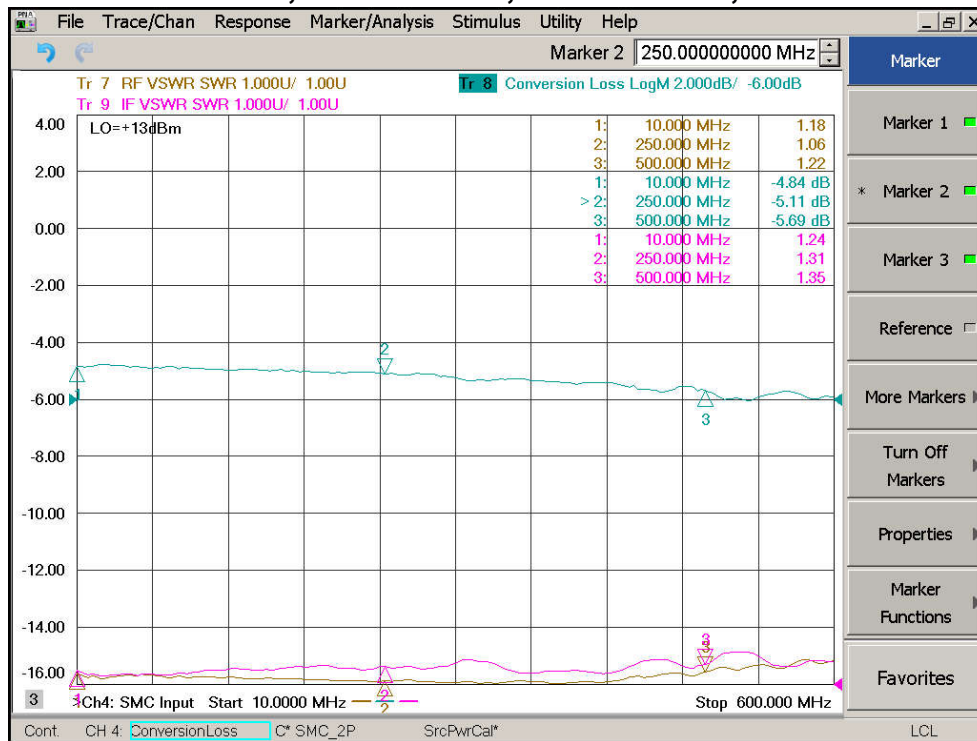
Isolation LO-RF, LO-IF, RF-IF, LO=+10dBm, IF=10MHz



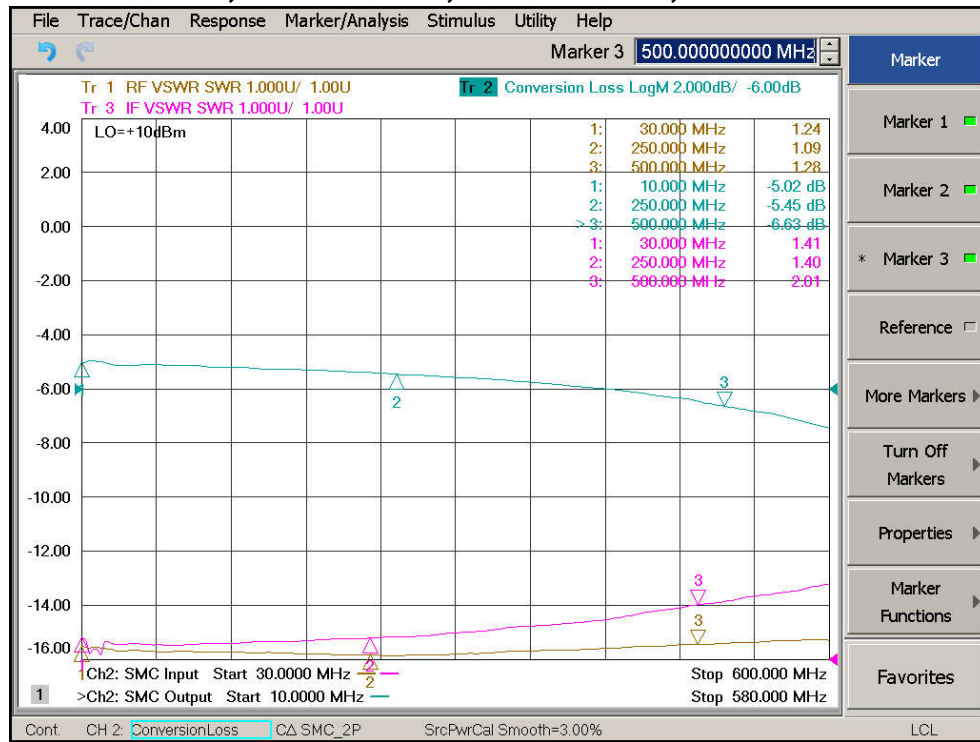
Conversion Loss, RF/IF VSWR, LO=+7dBm, IF=10MHz



Conversion Loss, RF/IF VSWR, LO=+13dBm, IF=10MHz



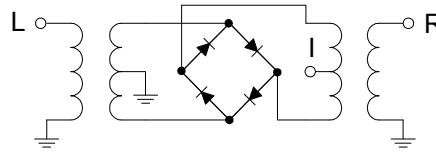
IF Bandwidth, RF/IF VSWR, LO=+10dBm, LO=20MHz



Absolute Maximum Ratings

| Parameter | Absolute Maximum |
|-----------------------|-------------------|
| RF Power | +17dBm |
| Peak IF Current | 40mA |
| Operating Temperature | -40 °C to +85 °C |
| Storage Temperature | -55 °C to +100 °C |

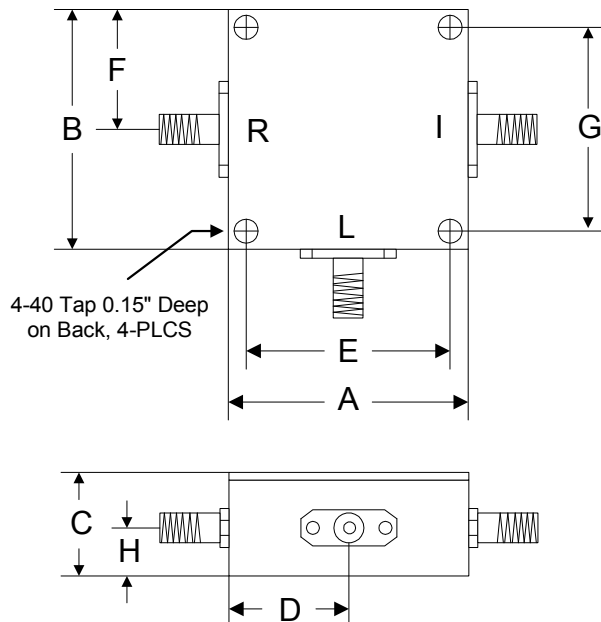
Schematic



ESD Sensitive Material



Outline



| | A | B | C | D | E | F | G | H |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inch | 1.250 | 1.250 | 0.563 | 0.625 | 1.000 | 0.625 | 1.000 | 0.250 |
| mm | 31.75 | 31.75 | 14.29 | 15.88 | 25.40 | 15.88 | 25.40 | 6.35 |