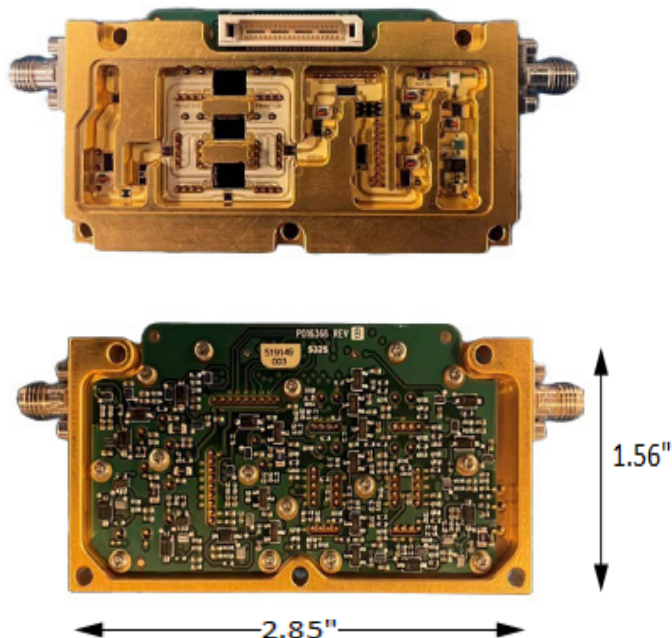


Miniature Multichannel EW Preselector (MMEP)



The Miniature Multichannel EW Preselector (MMEP) is a new addition to TRAK TECOM's IMA capabilities with a focus on SWaP.

This fully integrated module covers over 4 octaves of bandwidth from L to Ku band, with 9 overlapping but contiguous filter paths and a full-band bypass path. The MMEP is ideal for use in RF digitizer based transceiver platforms, and includes power limiting, digital gain control, and output power detection, in a compact hermetic package.

Applications

- EW Systems
- Broadband Radar
- Communication Systems
- RF Digitized Systems up to 18GHz

Features + Benefits

- **Broad Bandwidth:** L band to Ku band via bypass or filter selection
- **Excellent Filtering:** 9 selectable filter paths covering greater than 4 octaves of bandwidth with >55dB of isolation between filter paths
- **Hermetic Packaging:** Passes gross leak and fine leak tests per MIL-STD-202 Method 112
- **Fast Response Time:** <500ns settling time for switching filter paths and adjusting gain via digital interface control
- **High Resolution Gain Control:** >40dB of gain adjustment in 0.5dB steps
- **High Max RF Input:** can withstand input drive levels up to +21dBm
- **BIT detection:** Integrated RF power detection
- **Temperature Stability:** Self-leveling gain control over -40°C to +85°C operating temperature range

Performance Characteristics

- **Frequency Range:** 1.2-18GHz [9 overlapping bands]
- **Power Consumption:** 5.5Watts [typical]
- **Gain:** 17 - 23dB [post calibration]
- **Gain Flatness:** +/- 1.5dB
- **Gain Control:** >40dB [0.5dB resolution]
- **Out of Band Filter Rejection:** >55dBc
- **NF:** <13.5dB
- **OP1dB:** +6dBm [minimum]
- **Maximum No Damage Input Level:** +21dBm
- **Digital control response time:** <500ns
- **VSWR:** <2:1
- **Filter Path to Path Isolation:** >55dB
- **Form Factor:** 2.85" x 1.56" x 0.38"
- **Operating Temperature Range:** -40°C to +85°C



www.trak.com

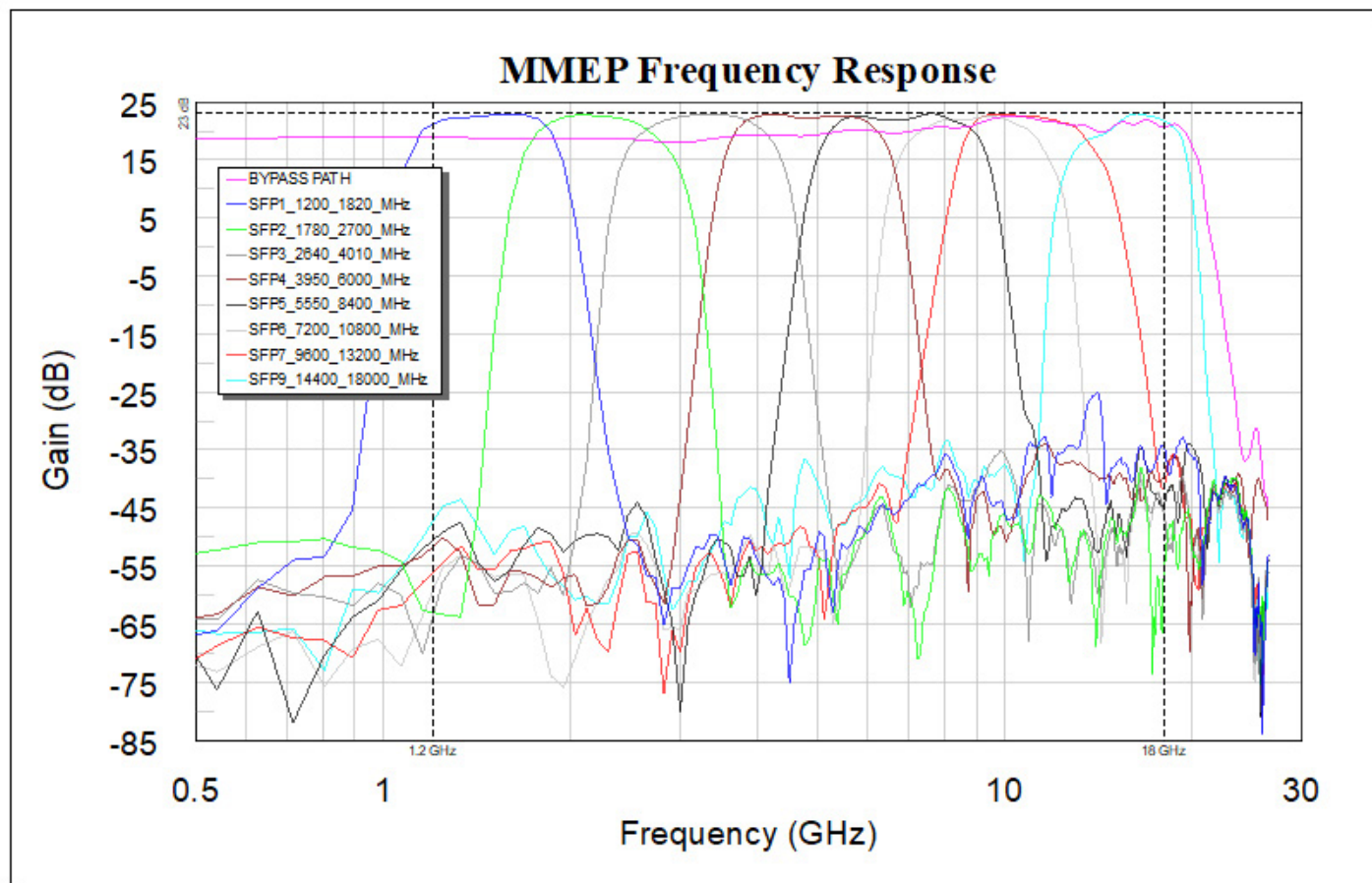


Follow Us



solutions@trak.com

Miniature Multichannel EW Preselector (MMEP)



Typical calibrated performance at +25°C



www.trak.com

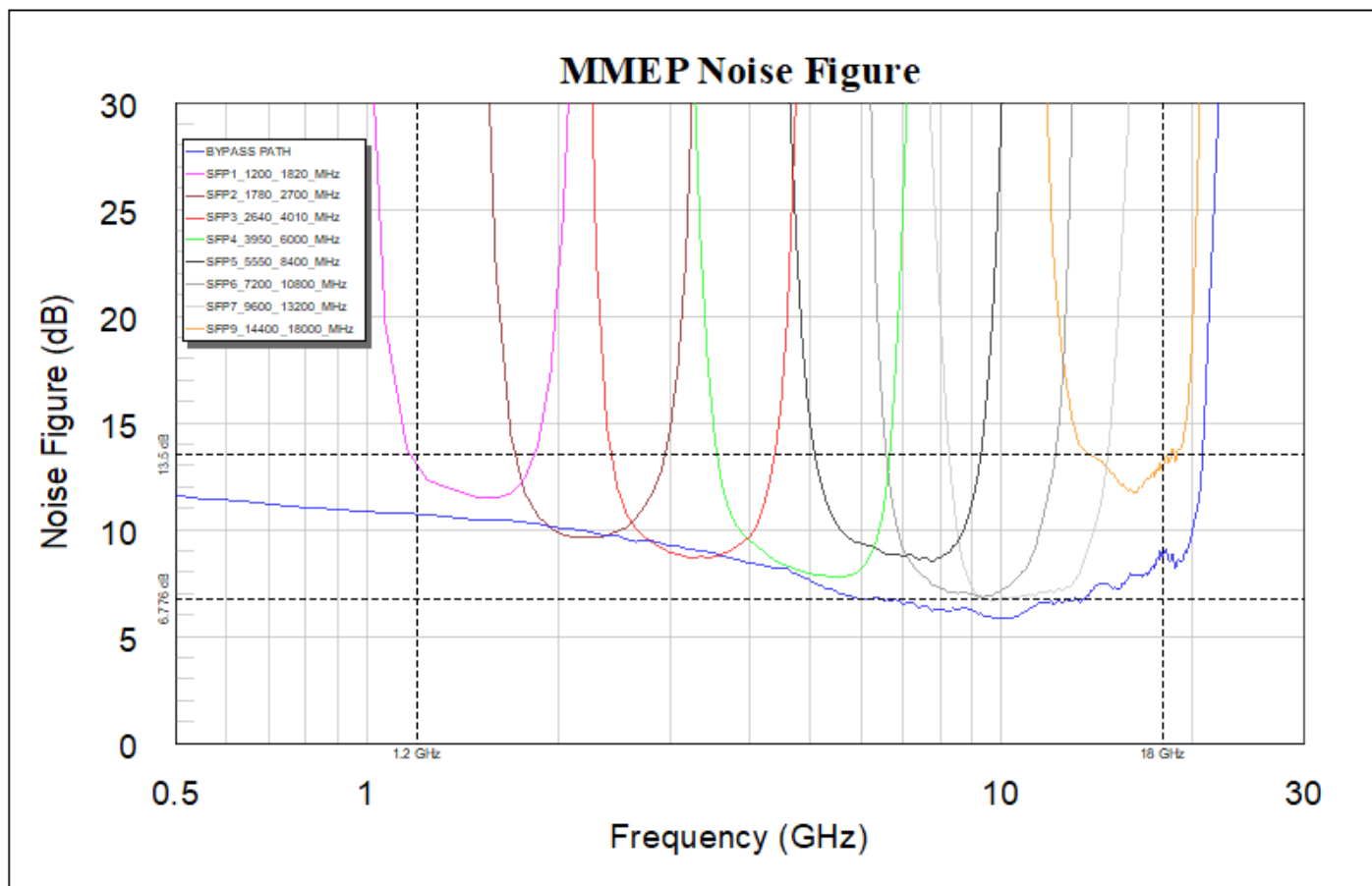


Follow Us



solutions@trak.com

Miniature Multichannel EW Preselector (MMEP)



Typical calibrated performance at +25°C

Variation in NF over frequency will improve after a design update, coming in Q2/2027



www.trak.com

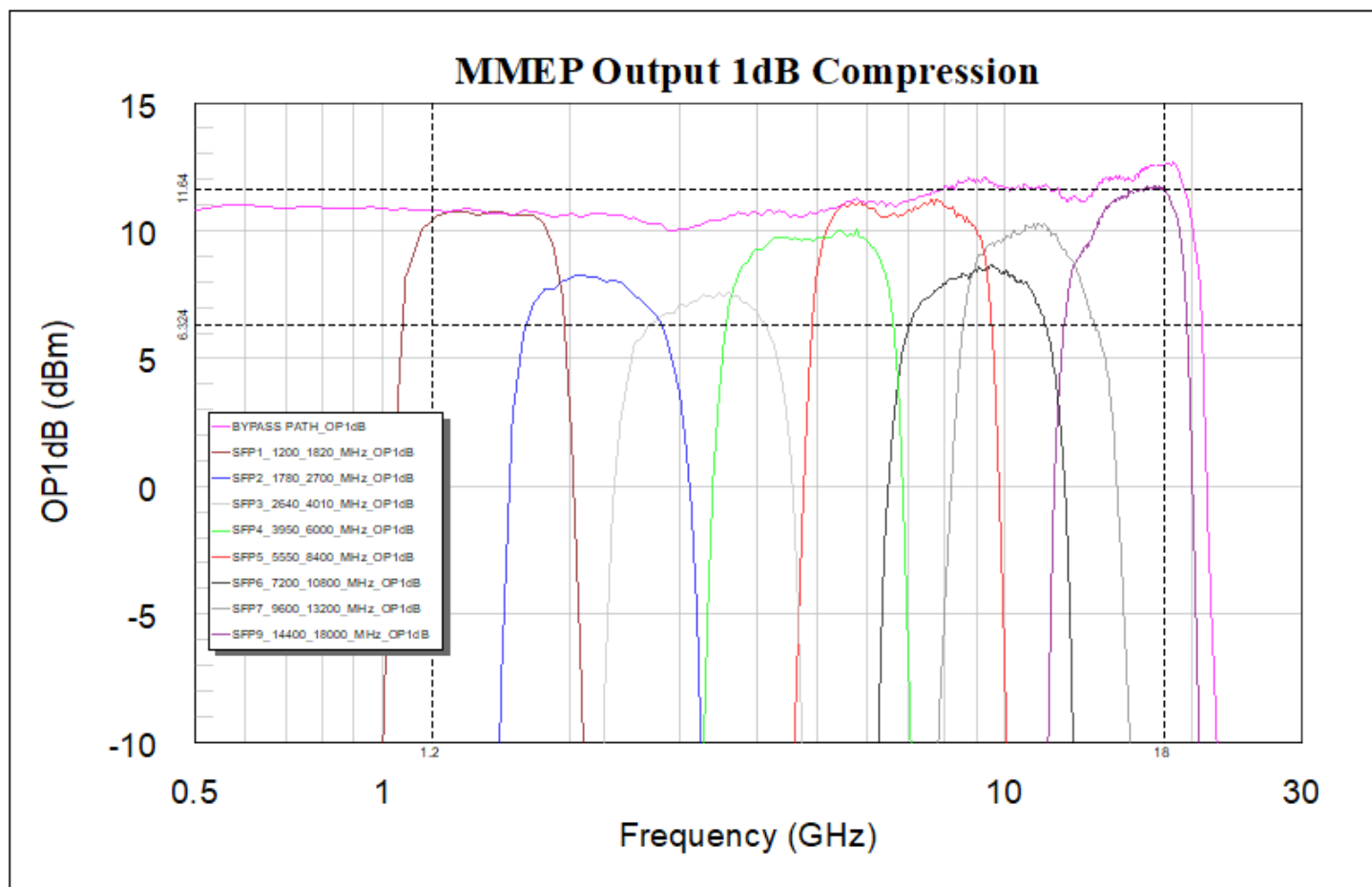


Follow Us



solutions@trak.com

Miniature Multichannel EW Preselector (MMEP)



Typical calibrated performance at +25°C

Variation in OP1dB over frequency will improve after a design update, coming in Q2/2027



www.trak.com



Follow Us



solutions@trak.com