

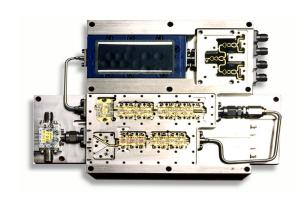
Phase Matched Receiver for Interferometer DF Systems 2.0 - 8.0 GHz and 8.0 - 18.0 GHz

Datasheet 173

FEATURES:

- MULTI-OCTAVE FREQUENCY COVERAGE
- 90 dB TEMPERATURE COMPENSATED AND
- PHASE MATCHED GAIN FOR LIMITED RF OUTPUT BUILT-IN LIMITER AND BITE SWITCH
- +/- 15° PHASE MATCH AT 18 GHz

AKON's line of products includes high reliability custom integrated microwave assemblies, DFD receivers, microwave receiver front-ends, RF switching matrices, frequency synthesizers, custom LO assemblies, frequency



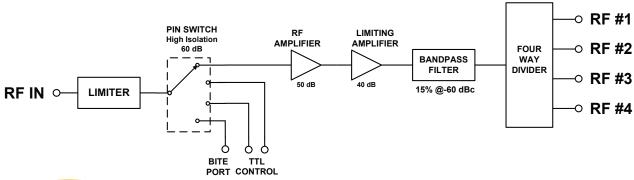
converters, RF switches, RF attenuators and microwave amplifiers covering 0.5 - 18.0 GHz frequency range (up to 26.5 GHz for some applications). AKON is qualified to MIL-I-45208 Quality System Requirements by agencies of the U.S. Department of Defense as well as various leading foreign and domestic military OEMs. All specifications are valid over the full operating temperature unless otherwise indicated.

This subsystem consists of a limiter, SP2T BITE switch, 90 to 95 dB phase matched receiver, highly flat RF amplifiers feeding a band Pass filter, and a four-way divider. In sum, the output feeds to the interferometer DF receiver processor. The unit results in a minimum +10 dBm output over -60 dBm to 0 dBm input while maintaining a phase match of +/- 15 degrees at 18.0 GHz and +/- 10 degrees at 8 GHz. This receiver covers 2.0 - 8.0 and 8.0 - 18.0 GHz, but units can be designed over 2.0 - 18.0 GHz bandwith similar performance. Please contact us directly to discuss specific applications to define a unit exactly tailored to your needs.

SPECIFICATIONS:

| Model Number | A20-MH025 | A20-MH026 |
|-----------------------------|--------------------|--------------------|
| Frequency Range (GHz) | 2.0 - 8.0 | 8.0 - 18.0 |
| Dynamic Range (dBm) | -65 to 0 | -64 to 0 |
| Noise Figure (dB) | 9 | 10 |
| Gain (dB) | 90 (min), 95 (typ) | 90 (min), 95 (typ) |
| Frequency Flatness (dB) | +/- 3.0 | +/- 3.0 |
| Phase Matched Flatness (°C) | +/- 12 | +/- 15 |
| Output Port/Port (°C) | +/- 5 | +/- 6 |

BLOCK DIAGRAM:





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OUTLINE DRAWINGS:

