

Digital Frequency Discriminator 2.0 - 6.0 GHz

Datasheet 297

FEATURES:

- 2.0 6.0 GHz FREQUENCY RANGE
- 100 nS to CW INPUT RF PULSE WIDTH
- **EXTERNALLY TRIGGERED**
- 14 BITS FREQUENCY RESOLUTION
- 100 nS RECOVERY TIME
- SIZE: 5.9" x 4.69" x 1.5"

AKON is a leading manufacturer of RF/microwave components and subsystems for military, space and commercial applications. AKON's product line 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, digitally controlled attenuators, miniature RF filters and switches, and microwave amplifiers covering 2.0 - 18.0 GHz frequency range (up to 40.0 GHz for some applications). AKON is qualified to MIL-I-45208 Quality System Requirements by agencies of the U.S. Department of Defense and by leading foreign and domestic military OEMs. All specifications are valid over the full operating temperature unless otherwise indicated.

SPECIFICATIONS:

| Model Number | A20-MH204 |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range (GHz) | 2 - 6 |
| Unambiguous BW (MHz) | 4800 |
| Frequency Accuracy (MHz) RMS | 1.5 (max) |
| Frequency Resolution (MHz) | 0.3 |
| Mean Cell Width (MHz) | 0.3 (nom) |
| Dynamic Range (dBm) | -65 to +5 |
| Sensitivity (dBm) | -65 |
| Signal Processing Capability | Pulse (100 ns to CW) |
| Input VSWR | 2:1 (max) |
| Input Impedance (Ohms) | 50 |
| Survival Power (dBm) | +20 |
| Operating Mode | External Clock Mode |
| Recovery Time (ns) | 100 (max) |
| Processing Shadow Time (ns) | 200 (max) |
| Throughput Time (ns) | 300 ns from external trigger |
| Data Ready | The Data Ready output shall be inactive (TTL high) |
| Output Frequency Data Word | The frequency data word shall be: Frequency = (decimal word x 0.3 MHz) +1800 MHz 14 bit |
| Data Ready Output | TTL high initially. TTL low when the frequency data of input RF signal has settled. Nominal pulse width 100 nanoseconds. After 100 ns, TTL releases to high. |
| Power Supply (VDC) (Unit is protected from reverse polarity, transients, and turn-on sequence) | +12 @ 200 mA +8V @ 1.3 A -8V @ 250 mA |
| Operating Temperature Range (°C) | -20 to +71 (higher temperatures available) |
| Size (Inches) | 5.9 x 4.69 x 1.5 |

Note: All dimensions are specified in inches (mm)

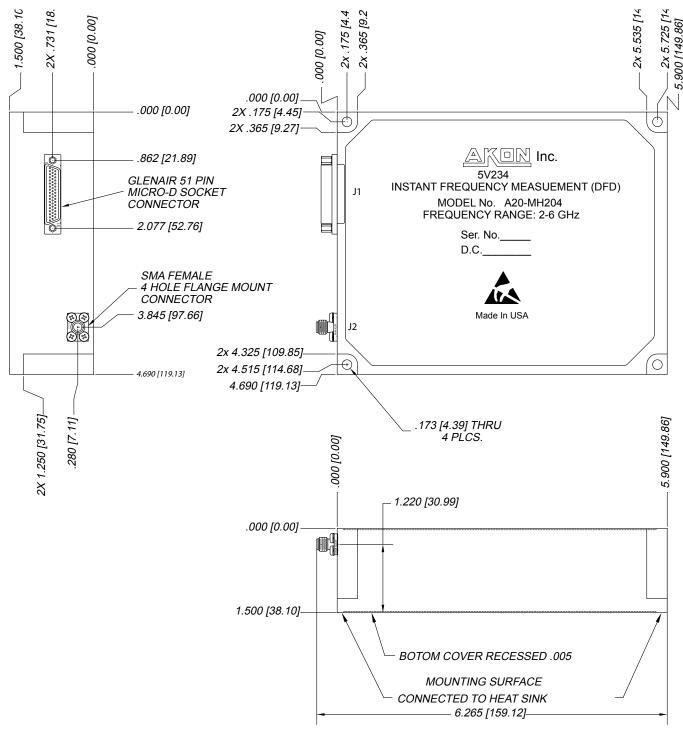




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OUTLINE DRAWING:







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TIMING DIAGRAM:

