

**FEATURES:**

- 2.0 - 18.0 GHz FREQUENCY RANGE
- HIGH SENSITIVITY -60 dBm
- MULTIPLE SIGNAL HANDLING
- TTL COMPATIBLE 14 BIT OUTPUT
- 300 nS PROCESSING TIME
- 5.0 MHz FREQUENCY ACCURACY
- 1.0 MHz FREQUENCY RESOLUTION



**AKON** is a leading manufacturer of RF, Microwave and Millimeter-Wave components and subsystems, including Digital Frequency Discriminator (D-IFM) subsystems. AKON's DFDs are highly integrated microwave assemblies using the latest digital and microwave technologies to provide a highly accurate unit in a small volume, and also be of robust reliability for long service life in full Military environments. The AKON DFD is housed in a compact 233 x 150 x 25.4 mm package. Package is environmentally sealed against dust and moisture. The DFD provides 14 bits of digital output corresponding to the measured frequency, along with flag outputs to indicate presence of signal, valid data output and other requirements. The unit is capable of processing simultaneous signals (pulse on pulse, pulse on CW), and will provide accurate results of the stronger of the two signals if the power difference is 6 dB or more. This particular model features both internal as well as external signal triggering modes, which are user selectable. In the internal trigger mode, the unit will automatically sense the presence of an incoming pulse which is above the threshold level and make a frequency measurement. In the external trigger mode, the unit will attempt to make a frequency measurement every time it receives an externally applied trigger pulse. Maximum external trigger frequency is 40 MHz. AKON has other models of DFDs which cover narrower frequency bands and therefore provide increased frequency accuracy. Please contact your local AKON representative or AKON directly for more information.

**SPECIFICATIONS:**

Model Number	A55-MH024
Frequency Range (GHz)	2.0 to 18.0 GHz
Input Pulse Width Range	50 nS to CW
Operating Input Dynamic Range (dBm)	-60 to +10
Triggering Modes	
External Triggering	External trigger clock up to 40 MHz
Internal Triggering	Pulse, Pulse on CW, Pulse on Pulse
For Pulse on Pulse/CW	Input Power Level Difference: 6.0 dB (min) Pulse Width: 100 ns (min) Pulse PRI: 300 ns (min)
VSWR	2.0:1 typical
Output	14 bits SE-TTL (LV5 or Differential available)
Frequency Resolution (MHz)	1.0 typical
RMS Accuracy (MHz)	5.0
Throughput Time (nS)	200
Processing Shadow Time (Internal Trigger Mode) (nS)	250
DC Power (VDC)	+12 @ 1.0 A; -12 @ 250 mA
Output Flags	Signal present; Data ready; Invalid Data
Dimensions (Inches)	9.17 x 5.9 x 1.0

Note: All dimensions are specified in inches (mm)

## OUTLINE DRAWING

