The *WAVECREST* **AG-100™** produces a pattern marker from a repeating, markerless data pattern that can then be used as an external arming signal for a *WAVECREST* DTS system. When using a pattern marker as an external Arm signal, *WAVECREST* DTS systems are able to make accurate jitter measurements on a given data pattern using the dataCOM tool in *WAVECREST****'s Virtual Instrument Signal Integrity™6 (VISI6)*** software. Based on pattern match, this Arming signal can be generated for Fibre Channel, Infiniband™ and Gigabit Ethernet signals. For Fibre Channel and Gigabit Ethernet protocols, the **AG-100** works at 1X or 2X speeds. For Infiniband (2.5 Gb/s), the unit must be set to 2X Gigabit Ethernet.

For further jitter information, refer to the current *Fibre Channel Methodologies for Jitter Specification* document at www.t11.org.

FEATURES

Pattern Marker - Provides pattern recognition of the data Start of Frame (SOF) or any unique 40-bit sequence and then outputs a marker to be used as an arming signal for the DTS-207x products.

Edge Count Mode - Edge count mode allows a marker to be generated after a user specified number of edges.

Built-in amplifiers - Used when the input signal is below the required input voltage. Two amplifiers are included, each with a nominal gain of 12dB.

AG-100 shown with DTS-2077

AG-100™ SPECIFICATIONS

Data Rate Range for Pattern Match ..... 1.0625, 1.25, 2.125, 2.5 Gb/s

Pattern Match Length Edge Count Mode ..... up to bits

Programmable Delay Range ..... up to 39 cycles @1X speeds
up to 78 cycles @ 2X speeds

Programmable Delay Resolution ..... 30 ps

Maximum Data Edge Count ..... 2^{34}-1

Maximum Input Voltage at the Pick-Off ..... 3.8 Volts peak-to-peak

Minimum Input Voltage at the Pick-Off ..... 500 mV (peak-to-peak)

Pick-Off Ratio .....10 dB Nominal
Pick-Off Insertion Loss (seen at Ch. Out) .....3.3 dB Nominal
Amplifier Gain .....12dB Nominal
Input Impedance .....50 Ω
Balun Transmission Loss .....Less than 6 dB typical, 30 Mhz to 3 Ghz

ENVIRONMENTAL SPECIFICATIONS

- **Power Requirements**

  Voltage..... 100-120/200-240VAC
  Frequency ..... 47-63 Hz
  Power..... Less than 100 W
  Mains Supply Voltage Fluctuations..... Not to exceed ±10% of nominal line voltages.

- **Environmental Requirements - Indoor Use Only**

  Elevation (Altitude) ..... to 6500 ft.
  Operating Temperature..... Ambient room temperatures of 15ºC to 35ºC
  Humidity..... 1% to 85% R.H. (Non-Condensing)
  Over-voltage Installation Category*..... CAT II
  Pollution Degree..... 2 per IEC664

  * This equipment should be connected to power supply mains using the power cord provided. Position the instrument so that the rear power switch and cord are easily accessible. Transient over-voltages are to be less than limits defined by installation category II, Annex J of EN 61010-1.