

ARMADA v 2.0 - North island digitizer

Programmable digitizer for military test systems



Digitizer conceived and designed for obsolescence replacement of Tektronix 7612D in AN/USM-484 military test systems.

FEATURES

- Form and fit replacement of the Tektronix 7612D programmable digitizer
- Dual channel 200 MS/s (5 ns) digitization
- 20 MHz analog bandwidth
- 9 input ranges
- Sampling rate down to 1 S/s (1 s)
- Developed with US Navy for HTS (AN/USM-484) F/A-18 tester

The Gage ARMADA system, also known as the North Island Digitizer, has been designed as a replacement for the Tektronix 7612D programmable digitizer, specifically for inclusion in the AN/USM-484 test system.

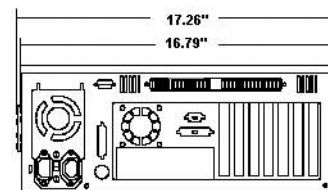
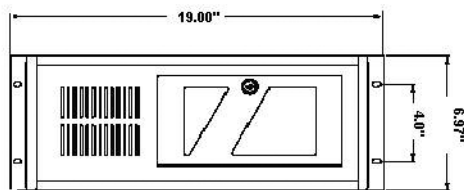
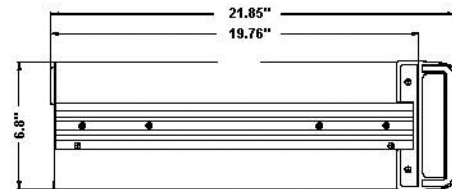
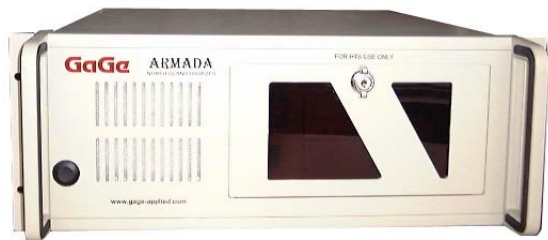
Gage worked closely with the US Navy to ensure that the functionality and characteristics required for the AN/USM-484 were met. A specific Acceptance Test Procedure was developed to verify the system prior to insertion in a tester.

The unit consists of a Celeron 566 MHz processor, a GPIB card and a 200 MS/s (5 ns) digitizer card. The operation of the unit is completely integrated and transparent to the user.

The ARMADA is the ideal product to extend the life of your HTS, providing no more and no less than what is required for the AN/USM-484 to ensure correct and safe operation of your mission critical systems. Gage has already supplied hundreds of units to the US Navy and Air Force, as well as to allied military forces around the world.

While the ARMADA Digitizer was designed specifically for the HTS, the unit may also be used for form fit and function replacements of the Tektronix 7612D in similar test systems still in operation, resulting in net cost savings and a new lease on life for legacy systems.

GAGE ARMADA DIAGRAM AND DIMENSIONS



OTHER APPLICABLE DOCUMENTS

For reference in IEEE STD 488-1
 NAVY DWG NO. 163078
 NADEP NORRIS PC DIGITIZER ACCEPTANCE
 TEST PROCEDURE (ATP) P/N: 81ATP12-001

ORDERING INFORMATION

Gage ARMADA v 2.0

690-100-201

ARMADA v 2.0 SPECIFICATIONS

PHYSICAL CHARACTERISTICS

Operating Temperature:	10 to 50 degrees Centigrade
Non-Operating Temperature:	-40 to +60 degrees Centigrade
Operating Altitude:	-250 to 10,000 feet
Non-Operating Altitude:	-250 to 50,000 feet
Chassis:	Industrial Grade rugged PC
Physical Dimensions:	19" (W) x 6.97" (H) x 21.85"(L)
Access to Connectors:	All BNC input connectors and power cables attach to the back of the unit
Warm-up Time:	20 minutes for achieving full specifications
Input Connector Marking:	CH A, CH B, L-TRIG and R-TRIG
Mounting:	¼ inch, 8-32 studs for attaching slides
Shelf Life:	Minimum of 2 years

ELECTRICAL CHARACTERISTICS

Input Power:	115 V +/- 15 V, 60 Hz +/- 3 Hz 1 Phase, Grounded Switchable to 230 Volt input
Max. Power Consumption:	300 Watts
Power Switch:	Momentary switch allows manual ON/OFF capability
Manual Reset:	RESET switch on front panel allows manual reset
Normal Power Up:	Autonomous (does not require any user intervention)

CHANNEL A & CHANNEL B INPUTS

Full Scale Inputs:	Full scale of 8 divisions with 32 bits per division
Coupling:	AC or DC, software selectable
Impedance:	1M Ω or 50 Ω , software selectable
Voltage Ranges Per Division:	10 mV, 20 mV, 50 mV, 100 mV, 200 mV, 500 mV, 1 V, 2 V and 5 V
Full Scale Voltage Ranges:	+/- 40 mV, +/- 80 mV, +/- 200 mV, +/- 400 mV, +/- 800 mV, +/- 2 V, +/- 4 V, +/- 8 V and +/- 20 V
DC Offset Capability:	Each channel can be offset by a maximum of +/- 8 divisions. An 8 bit DAC is used to set the DC offset
Analog Bandwidth:	DC to 20 MHz
AC Bandwidth Flatness:	DC to 5 MHz: within +/- 2% 5 MHz to 15 MHz: within +/- 3%

15 MHz to 20 MHz:	within +/- 3.5%
DC Accuracy:	+/- 2% of full scale in all voltage ranges
Digitizing Rate:	5 ns, 10 ns, 20 ns, 50 ns, 100 ns, 200 ns, 500 ns, 1 us, 2 us, 5 us, 10 us, 20 us, 50 us, 100 us, 200 us, 500 us, 1 ms, 2 ms, 5 ms, 10 ms, 20 ms, 50 ms, 100 ms, 200 ms, 500 ms, 1 s

TRIGGERING SYSTEM

Source:	CH A, CH B, L-TRIG or R-TRIG software selectable
Level:	256 levels, software selectable
Slope:	Positive or Negative, software selectable
Trigger Sensitivity:	No more than 20 LSBs
Trigger Indicator:	LED on Front Panel

ACQUISITION MEMORY

Acquisition Memory:	256, 512, 1024 or 2048 points, software selectable
Pre-Trigger Points:	0 to 2048, software selectable
Post-Trigger Data:	0 to 2048 points, software selectable

Note that a 1000 point Post-Trigger capture of 2048 samples means that data capture was started 1000 points after receiving a trigger.

This definition is closer to the industry-standard definition of "Delayed Trigger". The older definition of Post Trigger has been maintained in this specification for legacy purposes.

EXTERNAL TRIGGER INPUTS

L-TRIG & R-TRIG Inputs:

External Trigger input is two BNC connectors that can be electrically tied together or separate. Only one External Trigger input can be used at a time.

Coupling:	DC
Impedance:	50 Ω
Voltage Range:	+/- 1.28 Volts

MATERIALS SUPPLIED

- One ARMADA digitizer, rack-mount ready
- One Power Cord, 115 V AC
- Two Cable Assemblies for Front End Connections
- Two Cable Assemblies for Rear End Connections
- One ARMADA Manual
- One Disk Drive Recovery Disk
- One Registration Card

WARRANTY

One year parts and labor