

# AuroraTango Gigabit Ethernet Datasheet



Fig 1. Aurora Tango components

## Operation modes

Expert mode for manual operation of customised test scripts and detailed test results.

- Monitor mode
- Thought mode
- Terminate mode

Terminate mode can operate looping back traffic:

- Wired loop
- Clock recovered
- Mac loop
- IP loop

## Functions

- BERT at Physical, MAC and IP layers
- FCS error insertion
- Data loop at Physical, MAC and IP layer
- Top Ten lists of the most popular source and destination MAC, IP, VLAN addresses.
- Capture filters
- Real-time packet export for protocol decoding

## RFC 2544

Includes graphic results and traffic set up parameters for MAC, VLAN, IP and frame size.

- Throughput analysis per frame size
- Latency analysis per frame size
- Frame Loss per frame size and offered load
- Back to back analysis per frame size
- System Recovery analysis per frame size and rate

## Traffic generation

Traffic set up include frame rate and format including a complete set of customizable parameters at MAC, VLAN and IP layers.

Traffic profiles for

- Continuous
- Burst including duration frame count and gap
- Ramp including up/down/off and step

## Relevant standards

- IEEE 802.3 compliant
- RFC 1242, 2819, and 2544 compliant

## Ergonomic

- Size: 210x90x90 mm
- Weight: 1.1 Kg (Test module and UNITE)
- Battery operated or 12V DC from mains conversion
- Touch Screen: 240x320 colour
- Additional modules for ISDN, ADSL, and SHDSL
- 6 LEDs: Power, Charging, Port A Tx/Rx, Port B Tx/Rx, Progress/Pass/Fail test, On/off tester
- PDA interface Pocket PC IPAQ H3800/H3900

## Ethernet Interfaces

- 1000BaseSX
- 1000BaseLX
- 10/100BaseT



## Physical Layer tests

- Link status
- Synchronization
- Signal present (LOS)
- Optical power measure
- Cable test for metallic interface verification
  - Status: Length, Polarity swap, Pair skew
  - Check: Short, Open, Impedance mismatch

## MAC Layer analysis

- Frame statistics a for less than 64 bytes, 64 to 127, 128 to 255, 256 to 511, 512 to 1023, and 1024 to 1518 bytes
- Utilization percentage
- Transmitted/Received octets
- Valid frames count
- Errored frames count
- Unicast frames
- Multicast frames
- Broadcast frames
- Pause frames
- VLAN tagged frames
- Runt frames
- Jabber frames
- Fragment frames
- Undersize frames
- Oversize frames
- Code violations
- Frame loss count

## IP layer test

- DHCP client
  - automatic learn of submask,
  - gateway,
  - DNS server
  - IP address
- DNS support including host name to IP add and vice versa
- Source IP address and Destination IP address
- IP ping
- IP trace route

## Encapsulations

- EtherType II (DIX v.2)
- IEEE 802.3 - SNAP

## Results Storage

- Test reports archiving
- Test reports transfer to PC in text and CSV
- Traffic analysis with Observer protocol analyser

## Safety and Environmental

- EN55022 EMC Radiated and Conducted
- EN55024 EMC Immunity:
- EN60950 Electrical Safety
- EN609550:192/A11:1997
- CSA C22.2 No. 950 UL 1950
- IEC 950:1991/A4:1996
- Operating temperature: 0°C to +40°C
- Storage temperature: -20°C to +60°C

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