



RAM (REMOTE ACQUISITION MODULE)

FEATURES

- 24-bit Delta-Sigma A/D Conversion
- 6 or 8 channels per RAM
- Supports ARIES "Capacity on Demand" and automatic transmission load balancing
- Fully redundant quad-telemetry transmission
- Multi-path telemetry routing
- Line communication (for voice or shooting)
- Automatic error-free data recovery from 320-second (@ 2ms) on-board shot memory
- Positive Operation LED's provide instant verification of connectivity, power and telemetry functions
- Low distortion test oscillator with ARIES' exclusive fully programmable bit stream allows contractors to test channels and geophones with end-user specified signals
- ARIES' in-field programmable firmware allows logic upgrades to be performed on all RAMs connected to the ARIES Central System

SPECIFICATIONS

Dynamic Range*:

123dB @ 12dB gain
 120dB @ 24dB gain
 117dB @ 30dB gain
 135dB System Dynamic Range

Maximum Input:

.944 V RMS @ 12dB gain
 .214 V RMS @ 24dB gain
 .122 V RMS @ 30dB gain

Input Impedance:

20 K Ω (differential mode)

Equivalent input noise*:

.61 μ V RMS @ 12dB gain
 .20 μ V RMS @ 24dB gain
 .16 μ V RMS @ 30dB gain

Total Harmonic Distortion*:

0.0002%

Channel Matching:

Better than 1.0%.

Common Mode Rejection*:

>105dB

Time Standard:

+/- 2.5ppm (-40°C to +70°C)

Crossfeed Isolation*:

>130dB



Frequency Response:

3 Hz to 1640 Hz

Anti-alias filters:

-3dB @ .82 fN (Nyquist)

Rejection:

130dB @ fN (Nyquist)

Maximum distance between RAMs:

Up to 656m (2152')

Operating Voltage:

18 V DC - 30 V DC

Power consumption:

< 170mW / channel (typical)

PHYSICAL

Packaging:

6063 Aluminum

Connectors:

Stainless Steel

Size:

31cm x 17.3cm x 8.6cm
 (12.2" x 6.81" x 3.39")

Weight:

3.6 Kg (7.94 lb)

Operating temperature:

-40°C to +70°C

Storage temperature:

-45°C to +85°C

Humidity:

0% - 100%

Water depth:

50m non-intrusive

* Typical at 25°C 2ms