



XMA-BOX

Multiple Channel Data Acquisition Unit



FLIGHT TEST INSTRUMENTATION

The Safran Data Systems XMA-BOX proposes **high performance XMA modules technology in a cost effective 1U case**. The XMA-BOX allows data acquisition of analog and digital signal and their processing and streaming in various instrumentation data format.

Ideal for ground testing facilities, the XMA-BOX is also designed to cope with environmental conditions of small to large civil aircraft cabin.

The XMA-BOX is the best fit for **multiple data acquisition needs**, as a single box or integrated in a larger FTI system all by ensuring state-of-the-art accuracy.

Designed to operate seamlessly with existing flight test systems, **the XMA-BOX is fully compatible with Safran Data Systems architecture**.



Business Jet



Commercial & Freight Aircraft



Aerospace Ground Testing

XMA PERFORMANCE, SIMPLE HARDWARE

Provide XMA systems analog performance and functionalities in a cost-effective package

MULTIPLE HARDWARE CONFIGURATIONS

Full analog, Full ARINC 429, or digital buses: RS, MIL-STD, CAN, Discrete

MULTI-FORMAT OUTPUT STREAM

Ethernet output (IENA or IRIG 106 UDP Chapter 10), PCM IRIG 106 Chapter 4 output

EASY TO CONFIGURE

Assisted and faster configuration through Ethernet or USB

SYSTEM INTEGRATION

Standalone or integrated in a full network system along with XMA devices

MOUNTING CAPABILITY

19" rack-mounting kit including rear guide pins

TECHNICAL SPECIFICATIONS

MECHANICAL CHARACTERISTICS

Dimensions 482 x 225 x 44 mm
 Weight 2,700 g
 Mounting 19" rack-mount

INTERFACE

Power Supply 8 pin circular connector GLENAIR Series 801
 CPU and Application modules 51 pin crimpable connectors,
 AWG 24, SOURIAU microComp

POWER SUPPLY

Power Supply DC 18V – 40V
 Transient 16V – 50V DC (10s)
 Max. Power consumption 90W

ENVIRONMENTAL CONDITIONS

Test Procedure

Temperature Operating -40°C to +60°C
 DO-160G
 Max. Altitude 50,000 ft
 DO-160G Cat.A2
 Random Vibration 4,12Grms
 DO-160G Cat.S, Curve C
 Shocks 20g / 11ms - 20g / 20ms
 DO-160G Cat.B and E
 ESD +4kV direct contact discharge / +8kV air discharge

BOX CONFIGURATIONS

XMA-BOX ANA 56 multifunctional analog
 XMA-BOX MULT 32 multifunctional analog,
 16 ARINC429 ch.,
 4 RS ch., 16 Discrete ch.,
 4 MRC ch.*
 XMA-BOX ARC 112 ARINC429 ch.

*MRC ch.: configurable into CAN, RS or MIL-STD-1553 ch.

ACQUISITION CHARACTERISTICS

Analog Acquisition channel

- > Generic channels differential or single ended analog signal with or without excitation (current or voltage)
- > High bandwidth up to 20kHz metrological
- > High accuracy down to 0.05% FSR ($\pm 8mV - \pm 10.24V$)
- > Thermocouples K, J, T, E, N with cold junction compensation
- > RTD linearisation (PT50, PT100, PT1000)
- > Full bridge strain gauges
- > ICP accelerometers with TEDS (optional)
- > Multiprocessing

ARINC-429 channel

- > High or low speed ARINC-429 channel
- > Transparent or filtered mode (including optional SDI filter)
- > 3 levels of data extraction: bus, frame & word

MIL-STD-1553 channel

- > Independent or redundant channel
- > Transparent mode
- > Up to 1024 filters on specific 1553 message
- > Up to 2048 data extractions

RS channel

- > Asynchronous mode: RS232, RS422, RS485
- > Synchronous mode: RS422/485 (Data + clock)
- > Datarate up to 10Mbps
- > Configurable frame synchronization (Gap, Sync word)
- > Filtering on Header or Label
- > Data Extraction

CAN channel

- > Transparent or filtered mode
- > Up to 1024 filters (Bus Frame identifier 11 or 29 bits)

Discrete channel

- > Differential or unipolar discrete inputs with independent configurable threshold
- > Sampling or Event mode
- > Processing functions: Frequency, Period, Counter

GLOBAL SALES

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