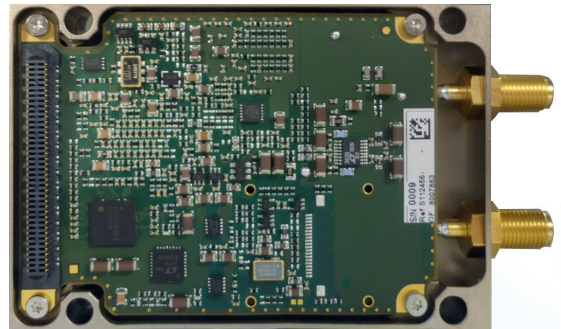




XMA WLS

**Wireless Link Module
for Aircraft & Industrial testing**



FLIGHT TEST INSTRUMENTATION

XMA Wireless Link Module is a high performance module allowing **wireless communication in wide range of aerospace and industry applications** from rocket, aircraft and helicopter to submarine and turbines. It allows peer to peer and one to many communication with **up to 80 Mbps with a synchronization of 100ns**, thanks to the combination of WIFI and Ultra Wide Band. XMA WLS acts as a **wireless gateway** allowing multiple remote devices to transparently connect through an IP tunnel.

XMA has been successfully tested in real and harsh conditions and adopted by demanding customers.



Rocket Launcher



Aircraft



Helicopter



UAV



Industry

DESIGNED FOR HARSH ENVIRONMENT

-40°C / +85°C, waterproof, shocks, vibration, EMI/EMC

ULTRA COMPACT

62 x 51 x 11mm
3 x 2 x 0.43 inches

HIGH SYNCHRONIZATION

100ns - PTP like

EFFICIENT

Up to 30m

FLEXIBLE

Hybrid WIFI & UWB

HIGH DATA RATE

Up to 80 Mbps

WIRELESS LINK MODULE

TECHNICAL SPECIFICATIONS

The WLS module is a transmission module from Safran Data Systems XMA Series allowing peer to peer and one to many wireless communications between Data Acquisition Units. It supports WIFI and UWB data transmission protocols.

MAIN FEATURES

WLS embeds 2 wireless technologies:

- WiFi for data transmission, configuration and monitoring
- UWB for data transmission and accurate synchronization

MECHANICAL CHARACTERISTICS

Dimensions L x W x H: 10AU slice 76.2 x 50.8 x 10.8mm (3 x 2 x 0,43 inches)
 Weight 90 g typ.

INTERFACE



SMA 0 WiFi
 SMA 1 UWB

ENVIRONMENTAL CONDITIONS

Test Procedure

Temperature Operating	-40°C to +85°C
.....	MILSTD810G
Storage	-55°C to +105°C
.....	MILSTD810G (501.5, 502.5)
Variation	< 10°C/min (-45°C +85°C)
.....	MILSTD810G (503.5)
Humidity	+55°C / 95% HR
.....	DO160-G Cat.C
Altitude	70,000 ft
.....	DO160-G Cat.E
Vibration, Random	30 g RMS
.....	20 – 2000 Hz
.....	MILSTD810F (514.6)
Acceleration	30g
.....	MILSTD810F (513.5)
Shock	50g / 11ms
.....	MILSTD810G (516.6)
ESD	4kV (contact) / 8kV
Power Supply	Controller-cell dependent
EMI/EMC	MIL-STD461ED

FEATURES ROADMAP

WLS module - release 1 (available Q3 2021)

In release 1, WLS module allows peer to peer communication between 2 XMA stacks for XMA instrumentation data and remote setup. Combined with IPX and OBP modules, it allows IP tunneling of external IP devices.

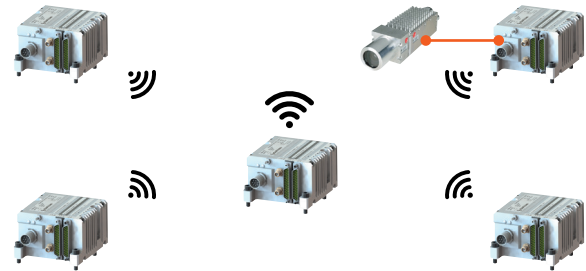
Maximum bitrate: 40 Mbps.



WLS module - release 2 (available Q3 2022)

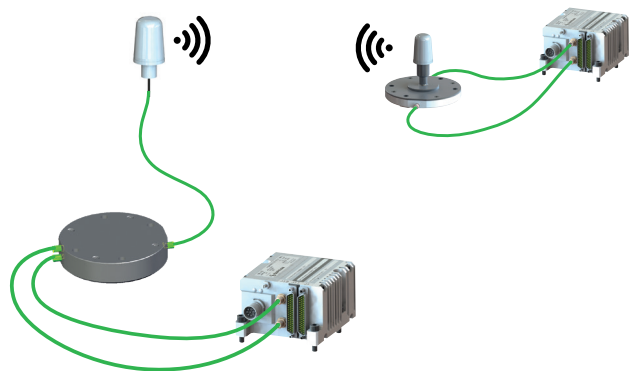
In release 2, WLS module also allows one to many communication between XMA stacks and FULL IP tunneling function.

Maximum bitrate: 80 Mbps.



Diplexers (examples)

Diplexers allow combining WiFi and UWB signals onto one unique antenna, with low RF losses. Using RF splitter would imply 6dB loss (3dB on each side transmission/reception). RF regulations constrain the output RF power to be lower than 14dBm which.



GLOBAL SALES

5, Avenue des Andes - CS 90101 - 91978 Courtaboeuf Cedex - FRANCE - Tel.: +33 1 69 82 78 00 - Email: sales.sdsy@safrangroup.com

USA

3005 Business Park Dr - Norcross, GA 30071 - USA - Tel.: +1 770 753 4017 - Email: sales@SafranDataSystemsUS.com