



DLMS DATA LINK MANAGEMENT SYSTEM

Selex ES Data Link Management System (DLMS) is the “CORE” element for Data Communication Systems on Manned and Unmanned Aerial Platforms. The DLMS, as a Tactical Data Link Processor evolution, represents, for onboard systems, the gateway to access voice/data communications over broadband IP-based and legacy Tactical Data Link systems.

In current military and para-military operational scenarios Fixed, Rotary and Unmanned platforms are requested to enhance their communications capability and improve their level of interoperability between heterogeneous forces on air, ground and sea, yet increasing their efficiency in terms of better performance, higher flexibility and modularity.

These requirements can be translated into needs like multiple data link integration, modular innovative architectures to ease the on-board platform integration and to add new capabilities minimizing HW/SW changes, and security management, including support to networked data routing (IP Based) for the full integration of the platform into the net-centric operational environment.

DATA LINK MANAGEMENT SYSTEM MAIN CHARACTERISTICS

- Enables IP based Network Centric Communications incorporating Ethernet Switching, IP routing and IP Encryption
- Modular HW architecture based on units with Processing, I/O and IP routing/switching functions
- Partitioned SW architecture based on ARINC653 RTOS to supports independent CNI applications
- IP Network Encryption Module, adaptable to specific National, NATO and Coalition security mission requirements
- Video/Audio digitization and compression for real-time transmission
- Modular I/O for customization on different application scenarios
- Redundant configurations for high availability applications
- DO178B-DO254 HW/SW development for safe applications' support
- Common Criteria and Tempest certification
- UAS Communication Management

TECHNICAL SPECIFICATIONS

Hardware Environment:

VPX (VITA46) 3U form factor SRUs
Dual Core Processor, 1GHz
Up to 512GB of HDD Capacity

Software Environment:

Operating Systems Wind River VxWorks 653 R2.4
Linux O.S. DEBIAN 6.0

Routing/Switching Standards:

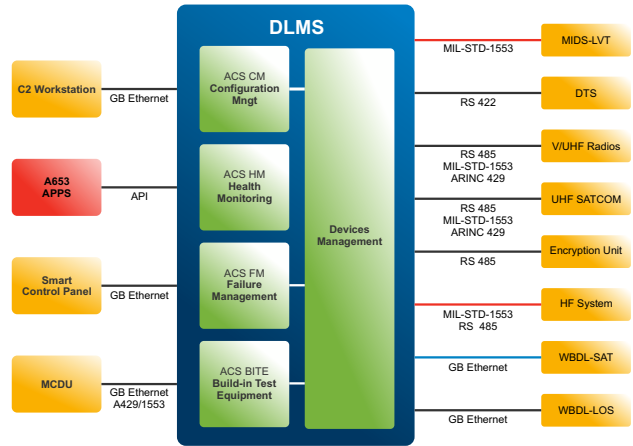
RFC 793 / RFC768	TCP/UDP Support
RFC 791 / RFC 2460	IPv4/IPv6 Support
RFC 826 / RFC1027	ARP / Proxy ARP
RFC 1350	TFTP
RFC 2328	OSPFv2 Routing
RFC 2131	DHCP Server
IEEE 802.1Q	VLAN Support
DSCP	DiffServ QoS model
RFC 4861	Network Discovery

Video Standards:

ITU-T H.264	Digital Video
PAL RS-170A , NTSC, S3350	Video Codec

NATO Standards:

STANAG 5516	Link 16
STANAG 5511	Link 11A
MIL-STD-2045-47001	VMF
STANAG 5519	VMF
STANAG 5616	Data Forwarding
MIL-STD-3011C	JREAP A, C
MIL-STD-1553	Serial Data Bus
MIL-STD-188-114A	Digital Interface Circuits
MIL-STD 188-220D	Digital Message Transfer Device Subsystems



External Interfaces

10/100/1000 IEEE802.3 (Fast/Giga Ethernet)

ARINC 429

RS485/422

ATDS/Link11

Avionic CAN BUS

Discretes in/out, Audio in/out, Video in/out

MIL-STD 1553

MIL-STD188-114A

Environmental Characteristics

Temperature	Operating: -40 °C to +70 °C
	Storage: -55 °C to +85 °C

Altitude	Up to 50000 feet
----------	------------------

Qualification

RTCA/DO-160F	Environmental conditions
--------------	--------------------------

MIL-STD-461E	EMI/EMC
--------------	---------

MIL-STD-1472	Human Engineering
--------------	-------------------

Mechanical Characteristics

Dimensions	¼ ATR (57x194x324 mm)
------------	-----------------------

Weight	<4 Kg
--------	-------

Cooling	No cooling required
---------	---------------------

Other Characteristics

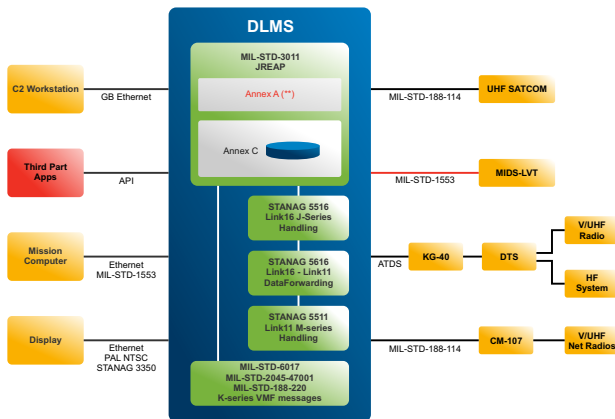
Reliability:	MTBF 2500 hours, MIL-HDBK-217,
	ARW Environment, 50 °C

Maintainability:	MTTR < 10 min (1st level)
------------------	---------------------------

	MTTR < 60 min (2nd level)
--	---------------------------

Consumption:	< 40 W
--------------	--------

Input power:	28VDC i.a.w. MIL-STD-704F
--------------	---------------------------



For more information please email infomarketing@selex-es.com

Selex ES S.p.A. - A Finmeccanica Company

Via Tiburtina, Km 12.400 - 00131 Rome - Italy - Tel: +39 06 41501 - Fax: +39 06 4131133

This publication is issued to provide outline information only and is supplied without liability for errors or omissions. No part of it may be reproduced or used unless authorised in writing.

We reserve the right to modify or revise all or part of this document without notice.

2014 © Copyright Selex ES S.p.A.

www.selex-es.com

ASD MM08213 7-14