

1 **TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 94/9/EC

3 EC - Type Examination Certificate Number: **Baseefa12ATEX0119X – Issue 1**

4 Equipment or Protective System: **Lynx Industrial Ethernet Switches & Lynx DSS Industrial Ethernet Device Server Switches**

5 Manufacturer: **Westermo Teleindustri AB**

6 Address: **SE-640 40 Stora Sundby, Sweden**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment of Category 3 intended for use in potentially explosive atmospheres given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential Report No's. See Certificate History

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012 EN 60079-15: 2010 EN 60079-28: 2007

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the equipment or protective system shall include the following :

 **II 3G - See Certificate Schedule for markings**

Baseefa Customer Reference No. **6934**

Project File No. **13/0948**

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R S SINCLAIR
GENERAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

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Certificate Number Baseefa12ATEX0119X – Issue 1

15 Description of Equipment or Protective System

The Lynx and Lynx DSS Industrial Ethernet Switches are designed for use in harsh environments providing a communication interface using fibre optic, multi and single mode trans-receivers in a network. The Lynx DSS also integrates a Device Server and includes two additional serial ports to allow interconnection with legacy equipment.

Both Lynx & Lynx DSS comprise a DIN rail mounted enclosure containing a power supply and a switch board. Both are supplied via dual power supply terminals which support redundancy power connection to the equipment. Both also have a digital I/O interface to allow the equipment's status to be reported to external equipment and external events to be monitored and a console port to allow connection to a Command Line Interface (CLI) for service and upgrading of the equipment.

The Switch board fitted in the Lynx provides up to eight 10/100Base Ethernet TX and up to two 100/1000 Mbit/s Ethernet SFP ports on the front of the enclosure. The Switch Board fitted in the Lynx DSS provides up to four 10/100Base Ethernet TX, up to two 100/1000 Mbit/s Ethernet Small Form-factor Pluggable (SFP) transceivers and two serial ports (one RS-232 and one configurable RS-232/422/485) for network connections with a USB port provided for upgrade and configuration of the equipment.

Where fitted, the Lynx & Lynx DSS SFP ports can be only fitted with the following Westermo Optical Transceiver modules:

SFP Transceivers, 100 Mbit	
1100-0131	MLC2, Multimode, LC-Connector, 2km, 1310nm
1100-0132	SLC20, Single mode, LC-Connector, 20km, 1310nm
1100-0133	SLC40, Single mode, LC-Connector, 40km, 1310nm
1100-0134	SLC80, Single mode, LC-Connector, 80km, 1550nm
1100-0140	SLC120, Single mode, LC-Connector, 120km, 1550nm
BiDi Transceivers, 100 Mbit	
1100-0145	SLC15-BiDi-A, Single mode, BiDi, 20km, 1310nm TX, 1550nm RX
1100-0146	SLC15-BiDi-B, Single mode, BiDi, 20km, 1550nm TX, 1310nm RX
1100-0152	MLC2-BiDi-A, Multimode, BiDi, 2km, 1310nm TX, 1550nm RX
1100-0153	MLC2-BiDi-B, Multimode, BiDi, 2km, 1550nm TX, 1310nm RX
SFP Transceivers, 1 Gbit	
1100-0144	GMLC550-SX, Multimode, LC-Connector, 550m, 850nm, SX
1100-0147	GMLC2-SX+, Multimode, LC-Connector, 2km, 1310nm, SX+
1100-0141	GSLC10-LX, Single mode, LC-Connector, 10km, 1310nm, LX
1100-0142	GSLC50-XD, Single mode, LC-Connector, 50km, 1550nm, XD
1100-0143	GSLC80-ZX, Single mode, LC-Connector, 80km, 1550nm, ZX
1100-0171	GSLC110-EZX, Single mode, LC-Connector, 110km, 1550nm, EZX
BiDi Transceiver, 1 Gbit	
1100-0156	GSLC20-BiDi-A, Single mode, BiDi, 20km, 1310nm TX, 1490nm RX
1100-0157	GSLC20-BiDi-B, Single mode, BiDi, 20km, 1490nm TX, 1310nm RX
Copper Transceiver, 1Gbit	
1100-0148	GC100, Copper, RJ45, 100m, 1000BaseT

The Lynx and Lynx DSS Switches are available with different port configurations, software variations and customer configuration denoted by characters in their model number.

The Lynx and Lynx DSS model ranges along with their certification markings are as defined below:

Lynx Industrial Ethernet Switch Models		
Lx06-F2G-EX-y	Lynx Ethernet Switch with 4 x 10/100Base Ethernet TX and 2 x 100/1000 Mbit/s Ethernet SFP	⊕ II 3G Ex nA [op is T4] IIC T3 Gc (-40°C ≤T _a ≤+70°C)
Lx10-F2G-EX-y	Lynx Ethernet Switch with 8 x 10/100Base Ethernet TX and 2 x 100/1000 Mbit/s Ethernet SFP	⊕ II 3G Ex nA [op is T4] IIC T3 Gc (-40°C ≤T _a ≤+70°C)
Lynx DSS Industrial Ethernet Device Server Switch Models		
Lx05-S1-EX-y	Lynx DSS with 4 x 10/100Base Ethernet TX and 1 x serial port fitted	⊕ II 3G Ex nA IIC T3 Gc (-40°C ≤T _a ≤+70°C)
Lx06-S2-EX-y	Lynx DSS with 4 x 10/100Base Ethernet TX and 2 x serial ports fitted	⊕ II 3G Ex nA IIC T3 Gc (-40°C ≤T _a ≤+70°C)
Lx08-F2G-S2-EX-y	Lynx DSS with 4 x 10/100Base Ethernet TX, 2 x 100/1000 Mbit/s Ethernet SFP and 2 x serial ports fitted	⊕ II 3G Ex nA [op is T4] IIC T3 Gc (-40°C ≤T _a ≤+70°C)
In above Model No's: x = 1 or 2 and indicates software version installed y = optional and may indicate customer specific model		

Input Parameters:

Power Connector: +DC1, +DC2 & -COM

Working Voltage Range = 24V to 48V d.c.

I/O Connector: 'Status +' & 'Status -' and 'Digital in +' and 'Digital in -'

Maximum I/P Voltage = 60V d.c.

16 Report Number

GB/BAS/ExTR13.0303/00

17 Specific Conditions of Use

- The equipment must be installed in an area of not more than pollution degree 2 in accordance with IEC/EN 60664-1, and in an enclosure that provides a minimum degree of protection of at least IP54 and complies with the relevant requirements of EN 60079-0 and EN 60079-15.
- External connections to the equipment and, where applicable, the SFP modules must not be inserted or removed unless either the area in which the equipment is installed is known to be non-hazardous, or the circuits connected have been de-energised.
- The network cables once installed must be properly fixed by the use of cable ties or similar to reduce the risk of accidentally withdrawing the plugs.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

New drawings submitted for this issue of certificate.

Number	Sheet	Issue	Date	Description
1212-1452-U-04	1 of 1	04	2013-12-03	Label L110-F2G-EX & L210-F2G-EX

Number	Sheet	Issue	Date	Description
1212-1453-U-04	1 of 1	04	2013-12-03	Label L106-F2G-EX & L206-F2G-EX
1212-1454-U-03	1 of 1	03	2013-12-03	Label L105-S1-EX & L205-S1-EX
1212-1455-U-03	1 of 1	03	2013-12-03	Label L106-S2-EX & L206-S2-EX
1212-1456-U-04	1 of 1	04	2013-12-03	Label L108-F2G-S2-EX & L208-F2G-S2-EX
2010-5053-C	1 of 22	02	11/22/12	Lynx+ Managed Switch
2010-5053-C	2 of 22	02	11/22/12	Lynx+ FLASH
2010-5053-C	3 of 22	02	11/22/12	Lynx+ Pluggable Fiber Port Block
2010-5053-C	4 of 22	02	11/22/12	Lynx+ Fiber Port 10
2010-5053-C	5 of 22	02	11/22/12	Lynx+ Fiber Port 9
2010-5053-C	6 of 22	02	11/22/12	Lynx+ Clock Oscillator
2010-5053-C	7 of 22	02	11/22/12	Lynx+ Management Light Block
2010-5053-C	8 of 22	02	11/22/12	Lynx+ Management Boot Conf, Reset and JTAG
2010-5053-C	9 of 22	02	11/22/12	Lynx+ Management FX Ports
2010-5053-C	10 of 22	02	11/22/12	Lynx+ CSPI Interface
2010-5053-C	11 of 22	02	11/22/12	Lynx+ Management UART, I2C and MII
2010-5053-C	12 of 22	02	11/22/12	Lynx+ Management Memory Interface
2010-5053-C	13 of 22	02	11/22/12	Lynx+ Management Power
2010-5053-C	14 of 22	02	11/22/12	Lynx+ Programming and Debugging Interface
2010-5053-C	15 of 22	02	11/22/12	Lynx+ SDRAM
2010-5053-C	16 of 22	02	11/22/12	Lynx+ Point of Load
2010-5053-C	17 of 22	02	11/22/12	Lynx+ Switch Core Block
2010-5053-C	18 of 22	02	11/22/12	Lynx+ 8 TX Ports Integrated Magnetics
2010-5053-C	19 of 22	02	11/22/12	Lynx+ TX Ports 1 & 2
2010-5053-C	20 of 22	02	11/22/12	Lynx+ TX Ports 3 & 4
2010-5053-C	21 of 22	02	11/22/12	Lynx+ TX Ports 5 & 6
2010-5053-C	22 of 22	02	11/22/12	Lynx+ TX Ports 7 & 8
2010-5234-C	1 of 25	02	11/22/12	Lynx DSS Managed Switch
2010-5234-C	2 of 25	02	11/22/12	Lynx DSS FLASH
2010-5234-C	3 of 25	02	11/22/12	Lynx DSS Pluggable Fiber Port Block
2010-5234-C	4 of 25	02	11/22/12	Lynx DSS Fiber Port 10
2010-5234-C	5 of 25	02	11/22/12	Lynx DSS Fiber Port 9
2010-5234-C	6 of 25	02	11/22/12	Lynx DSS Clock Oscillator
2010-5234-C	7 of 25	02	11/22/12	Lynx DSS Management Light Block
2010-5234-C	8 of 25	02	11/22/12	Lynx DSS Management Boot Conf, Reset and JTAG

Number	Sheet	Issue	Date	Description
2010-5234-C	9 of 25	02	11/22/12	Lynx DSS Management FX Ports
2010-5234-C	10 of 25	02	11/22/12	Lynx DSS Management CSPI Interface
2010-5234-C	11 of 25	02	11/22/12	Lynx DSS Management UART, I2C and MII
2010-5234-C	12 of 25	02	11/22/12	Lynx DSS Management Memory Interface
2010-5234-C	13 of 25	02	11/22/12	Lynx DSS Management Power
2010-5234-C	14 of 25	02	11/22/12	Lynx DSS Programming and Debugging Interface
2010-5234-C	15 of 25	02	11/22/12	Lynx DSS RS-232 Port
2010-5234-C	16 of 25	02	11/22/12	Lynx DSS RS-232/422/485 Port
2010-5234-C	17 of 25	02	11/22/12	Lynx DSS Logic CPLD
2010-5234-C	18 of 25	02	11/22/12	Lynx DSS Termination and Protection
2010-5234-C	19 of 25	02	11/22/12	Lynx DSS SDRAM
2010-5234-C	20 of 25	02	11/22/12	Lynx DSS Point of Load
2010-5234-C	21 of 25	02	11/22/12	Lynx DSS Switch Core Block
2010-5234-C	22 of 25	02	11/22/12	Lynx DSS 4 TX Ports Integrated Magnetics
2010-5234-C	23 of 25	02	11/22/12	Lynx DSS TX Ports 1 & 2
2010-5234-C	24 of 25	02	11/22/12	Lynx DSS TX Ports 3 & 4
2010-5234-C	25 of 25	02	11/22/12	Lynx DSS USB Interface
3643-5105-U-01	1 & 2	01	2013-11-08	Assembly Drawing Lynx L110-F2G-EX & L210-F2G-EX
3643-5205-U-01	1 & 2	01	2013-11-08	Assembly Drawing Lynx L108-F2G-S2-EX & L208-F2G-S2-EX
3643-5215-U-01	1 & 2	01	2013-12-05	Assembly Drawing Lynx L105-S1-EX & L205-S1-EX
3643-5225-U-01	1 & 2	01	2013-11-08	Assembly Drawing Lynx L106-S2-EX & L206-S2-EX
3643-5235-U-01	1 & 2	01	2013-11-08	Assembly Drawing Lynx L106-F2G-EX & L206-F2G-EX
5011-1110-B	1 to 8	03	2012-11-20	LynxPlus Switch
5011-1150-B	1 to 11	03	2012-11-20	LynxPlus Serial Switch
5011-1200-B	1 to 9	02	2012-11-22	Lynx DSS Entry Level S1
5011-1210-B	1 to 10	02	2012-11-22	Lynx DSS Entry Level 2S
5011-1220-B	1 to 9	02	2012-11-22	Lynx DSS Entry Level F2G

The above drawings are associated and held with IECEx Certificate No. IECEx BAS 13.0135X

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
2010-5053-H	1 & 2	01	02/10/12	2010-505x Gigalynx
2010-5234-H	1 & 2	01	02/10/12	2010-523x LynxPlus Serial
2010-5251-C	1 of 8	01	05/03/11	Lynx Power Module 19-60V DC 10W
2010-5251-C	2 of 8	01	05/03/11	Lynx Power Module 19-60V DC 10W Fault Relay
2010-5251-C	3 of 8	01	05/03/11	Lynx Power Module 19-60V DC 10W MMI Block
2010-5251-C	4 of 8	01	05/03/11	Input Power Module
2010-5251-C	5 of 8	01	05/03/11	Lynx Power Module 19-60V DC 10W 3,3V 10W Out
2010-5251-C	6 of 8	01	05/03/11	Protection
2010-5251-C	7 of 8	01	05/03/11	Lynx Power Module 19-60V DC 10W 2,5V Regulator and Reset Circuit
2010-5251-C	8 of 8	01	05/03/11	Lynx Power Module 19-60V DC 10W ID Memory and Console Connector
2010-5251-H	1 & 2	01	05/03/11	2010-525x Lynx DSS Power
5011-1060-B	1 to 5	01	2011-05-03	Lynx DSS Power 4-Layer

20 Certificate History

Certificate No.	Date	Comments
Baseefa12ATEX0119X	28 October 2013	The release of the prime certificate. The associated test and assessment is documented in Certification Report No. GB/BAS/ExTR13.0195/00.
Baseefa12ATEX0119X Issue 1	10 January 2014	<p>To permit: -</p> <p>i) the changing of the model numbering of all variants of the Lynx & Lynx DSS to add '-EX' suffix. This change does not affect the original assessment of the equipment. The Certificate Schedule was revised to list the new model numbers.</p> <p>ii) minor component, label and drawing changes not affecting the original assessment. As part of the changes, Assembly Drawing No's 3643-0105-U-01, 3643-0205-U-01, 3643-0215-U-01, 3643-0225-U-01 & 3643-0235-U-01 were replaced by new Assembly Drawing No's 3643-5105-U-01, 3643-5205-U-01, 3643-5215-U-01, 3643-5225-U-01 & 3643-5235-U-01.</p> <p>The test and assessment of the above is documented in Certification Report No. GB/BAS/ExTR13.0303/00.</p>
For drawings applicable to each issue, see original of that issue.		