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#### TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres 2 Directive 2014/34/EU

Type Examination Certificate 3

1

Baseefa12ATEX0119X - Issue 4

Number:

In accordance with Article 41 of Directive 2014/34/EU, Type Examination Certificates referring to 94/9/EC that were in 3.1 existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

Product: Lynx Industrial Ethernet Switches & Lynx DSS Industrial Ethernet Device Server

**Switches** 

Manufacturer: Westermo Teleindustri AB 5

Address: SE-640 40 Stora Sundby, Sweden

- This re-issued certificate extends Type Examination Certificate No. Baseefa12ATEX0119X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.
- 8 SGS Baseefa certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products of Category 3 intended for use in potentially explosive atmospheres given in Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

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

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

EN IEC 60079-0: 2018 EN 60079-15: 2010

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 product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of 11 equipment subsequently manufactured.
- 12 The marking of the product shall include the following:

SGS Baseefa Customer Reference No. 6934

Project File No. 19/0296

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R S SINCLAIR TECHNICAL MANAGER On behalf of SGS Baseefa Limited

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13 Schedule

#### Certificate Number Baseefa12ATEX0119X – Issue 4

#### 15 Description of Product

14

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. These modules comply with the Class I limits of IEC 60825-1 and therefore the equipment is outside the scope of EN 60079-28: 2015 for Equipment Protection Level Gc.

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:

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Lynx Industrial Ethernet Switch Models						
L206-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 IIC T3 Gc (-40°C $\leq$ T <sub>a</sub> $\leq$ +70°C)			
L210-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 IIC T3 Gc (-40°C $\leq$ T <sub>a</sub> $\leq$ +70°C)			
Lynx DSS Industrial E	thernet Device Server Switch Mode	els				
L205-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 $\leq$ T <sub>a</sub> $\leq$ +70°C)			
L206-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 $\leq$ T <sub>a</sub> $\leq$ +70°C)			
L208-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	⟨E⊗ II 3G	Ex nA IIC T3 Gc (-40°C $\leq$ T <sub>a</sub> $\leq$ +70°C)			
In above Model No's 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

See Certificate History

#### 17 Specific Conditions of Use

- 1. 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 IEC 60079-0 and EN 60079-15.
- 2. 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 deenergised.
- 3. The network cables once installed must be properly fixed by the use of cable ties or similar to reduce the risk of accidently withdrawing the plugs.

#### 18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	Protection against other hazards (LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects



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Clause

Subject

1.4.2

Aggressive substances, etc.

## 19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
1212-1452-UP-08	1 of 1	08	2019-09-16	Label L110-F2G-EX & L210-F2G-EX
1212-1453-UP-08	1 of 1	08	2019-09-16	Label L106-F2G-EX & L206-F2G-EX
1212-1454-UP-07	1 of 1	07	2019-09-16	Label L105-S1-EX & L205-S1-EX
1212-1455-UP-07	1 of 1	07	2019-09-16	Label L106-S2-EX & L206-S2-EX
1212-1456-UP-08	1 of 1	08	2019-09-16	Label L108-F2G-S2-EX & L208-F2G-S2-EX

The above drawings are associated and held with IECEx Certificate No. IECEx BAS 13.0135X Iss. 3

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
2010-5053-C	1 of 22	03	12/09/14	Lynx+ Managed Switch
2010-5053-C	2 of 22	03	12/09/14	Lynx+ FLASH
2010-5053-C	3 of 22	03	12/09/14	Lynx+ Pluggable Fiber Port Block
2010-5053-C	4 of 22	03	12/09/14	Lynx+ Fiber Port 10
2010-5053-C	5 of 22	03	12/09/14	Lynx+ Fiber Port 9
2010-5053-C	6 of 22	03	12/09/14	Lynx+ Clock Oscillator
2010-5053-C	7 of 22	03	12/09/14	Lynx+ Management Light Block
2010-5053-C	8 of 22	03	12/09/14	Lynx+ Management Boot Conf, Reset and JTAG
2010-5053-C	9 of 22	03	12/09/14	Lynx+ Management FX Ports
2010-5053-C	10 of 22	03	12/09/14	Lynx+ CSPI Interface
2010-5053-C	11 of 22	03	12/09/14	Lynx+ Management UART, I2C and MII
2010-5053-C	12 of 22	03	12/09/14	Lynx+ Management Memory Interface
2010-5053-C	13 of 22	03	12/09/14	Lynx+ Management Power
2010-5053-C	14 of 22	03	12/09/14	Lynx+ Programming and Debugging Interface
2010-5053-C	15 of 22	03	12/09/14	Lynx+ SDRAM
2010-5053-C	16 of 22	03	12/09/14	Lynx+ Point of Load
2010-5053-C	17 of 22	03	12/09/14	Lynx+ Switch Core Block
2010-5053-C	18 of 22	03	12/09/14	Lynx+ 8 TX Ports Integrated Magnetics
2010-5053-C	19 of 22	03	12/09/14	Lynx+ TX Ports 1 & 2
2010-5053-C	20 of 22	03	12/09/14	Lynx+ TX Ports 3 & 4
2010-5053-C	21 of 22	03	12/09/14	Lynx+ TX Ports 5 & 6
2010-5053-C	22 of 22	03	12/09/14	Lynx+ TX Ports 7 & 8
2010-5053-Н	1 & 2	01	02/10/12	2010-505x Gigalynx
2010-5234-C	1 of 25	03	12/09/14	Lynx DSS Managed Switch
2010-5234-C	2 of 25	03	12/09/14	Lynx DSS FLASH
2010-5234-C	3 of 25	03	12/09/14	Lynx DSS Pluggable Fiber Port Block
2010-5234-C	4 of 25	03	12/09/14	Lynx DSS Fiber Port 10

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Number	Sheet	Issue	Date	Description
2010-5234-C	5 of 25	03	12/09/14	Lynx DSS Fiber Port 9
2010-5234-C	6 of 25	03	12/09/14	Lynx DSS Clock Oscillator
2010-5234-C	7 of 25	03	12/09/14	Lynx DSS Management Light Block
2010-5234-C	8 of 25	03	12/09/14	Lynx DSS Management Boot Conf, Reset and JTAG
2010-5234-C	9 of 25	03	12/09/14	Lynx DSS Management FX Ports
2010-5234-C	10 of 25	03	12/09/14	Lynx DSS Management CSPI Interface
2010-5234-C	11 of 25	03	12/09/14	Lynx DSS Management UART, I2C and MII
2010-5234-C	12 of 25	03	12/09/14	Lynx DSS Management Memory Interface
2010-5234-C	13 of 25	03	12/09/14	Lynx DSS Management Power
2010-5234-C	14 of 25	03	12/09/14	Lynx DSS Programming and Debugging Interface
2010-5234-C	15 of 25	03	12/09/14	Lynx DSS RS-232 Port
2010-5234-C	16 of 25	03	12/09/14	Lynx DSS RS-232/422/485 Port
2010-5234-C	17 of 25	03	12/09/14	Lynx DSS Logic CPLD
2010-5234-C	18 of 25	03	12/09/14	Lynx DSS Termination and Protection
2010-5234-C	19 of 25	03	12/09/14	Lynx DSS SDRAM
2010-5234-C	20 of 25	03	12/09/14	Lynx DSS Point of Load
2010-5234-C	21 of 25	03	12/09/14	Lynx DSS Switch Core Block
2010-5234-C	22 of 25	03	12/09/14	Lynx DSS 4 TX Ports Integrated Magnetics
2010-5234-C	23 of 25	03	12/09/14	Lynx DSS TX Ports 1 & 2
2010-5234-C	24 of 25	03	12/09/14	Lynx DSS TX Ports 3 & 4
2010-5234-C	25 of 25	03	12/09/14	Lynx DSS USB Interface
2010-5234-Н	1 & 2	01	02/10/12	2010-523x LynxPlus Serial
5011-1110-B	1 to 10	04	2014-12-09	LynxPlus Switch
5011-1150-B	1 to 14	04	2014-12-09	LynxPlus Serial Switch
5011-1200-B	1 to 11	03	2014-12-10	Lynx DSS Entry Level S1
5011-1210-B	1 to 13	03	2014-12-10	Lynx DSS Entry Level S2
5011-1220-B	1 to 11	03	2014-12-10	Lynx DSS Entry Level F2G
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
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



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Number	Sheet	Issue	Date	Description
3643-5235-U-01	1 & 2	01	2013-11-08	Assembly Drawing Lynx L106-F2G-EX & L206-F2G-EX
5011-1060-В	1 to 5	01	2011-05-03	Lynx DSS Power 4-Layer
5011-1110-В	1 to 10	04	2014-12-09	LynxPlus Switch
5011-1150-В	1 to 14	04	2014-12-09	LynxPlus Serial Switch
5011-1200-В	1 to 11	03	2014-12-10	Lynx DSS Entry Level S1
5011-1210-В	1 to 13	03	2014-12-10	Lynx DSS Entry Level S2
5011-1220-B	1 to 11	03	2014-12-10	Lynx DSS Entry Level F2G

The above drawings are associated and held with IECEx BAS 13.0135X

## 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	To permit: -  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.
		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.
		The test and assessment of the above is documented in Certification Report No. GB/BAS/ExTR13.0303/00.
Baseefa12ATEX0119X Issue 2	25 March 2014	To permit minor label changes to all variants of the equipment not affecting the original assessment. The assessment is documented in Certification Report No. GB/BAS/ExTR14.0071/00.
Baseefa12ATEX0119X Issue 3	18 February 2015	To permit minor component changes to the switch boards fitted in all variants of the Lynx & Lynx DSS Industrial Ethernet Switches. These changes are assessed not to affect the original assessment.
		The test and assessment of the above is documented in Certification Report No. GB/BAS/ExTR15.0040/00.

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Certificate No.	Date	Comments
Baseefa12ATEX0119X	29 October 2019	To permit: -
Issue 4		i) the removal of the L110-F2G-EX, L106-F2G-EX, L105-S1-EX, L106-S2-EX & L108-F2G-S2-EX variants of the equipment with Software Option '1' from the Schedule. The model information in the Certificate Schedule was revised to remove the models.
		ii) Minor label changes not affecting the original assessment. As a result, new label drawings were introduced replacing previous drawing No's 1212-1452-U-06, 1212-1453-U-06, 1212-1454-U-05, 1212-1455-U-05 & 1212-1456-U-06.
		iii)To confirm the current designs of the Lynx Industrial Ethernet Switches & Lynx DSS Industrial Ethernet Device Server Switches have been reviewed against the requirements of EN IEC 60079-0: 2018 and EN 60079-28: 2015 in respect of the differences from EN 60079-0: 2012 and EN 60079-28: 2007.
		Since some of the variants of the equipment contain Westermo Optical Transceiver modules which comply with the Class 1 limits of IEC 60825-1, the equipment is now no longer in the Scope of EN 60079-28: 2015 for Equipment Protection Level (EPL) Gc, therefore the equipment marking has been revised to remove the associated 'op is' marking previously required in accordance with EN 60079-28: 2007. The standard has also been removed from page 1 of the certificate.
		The test and assessment of the above is detailed in Certification Report No. GB/BAS/ExTR19.0219/00 (held with IECEx Certificate No. IECEx BAS 13.0135X Iss. 3), Project File 19/0298.
For drawings applicable to ea	ach issue, see original of	that issue.

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