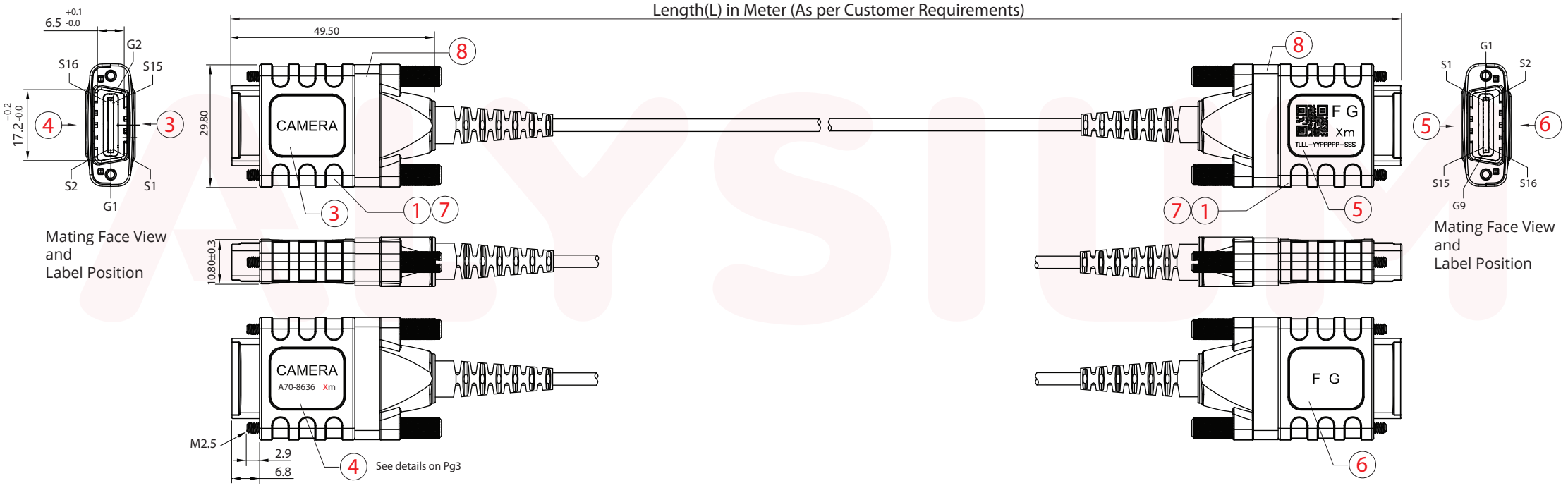




DRAWING REF: **A70-8636**
 DRAWING REF: 14G CX4 7X1 AOC (Die Cast with Screw Lock) Assy.
 REVISION: 02 (Chua 210921) Update Label
 03 (Chua 211007) Update Font Size
 04 (Chua 220207) Update T Code
 05 (WON 230224) Update Test Spec

Length(L) in Meter (As per Customer Requirements)



UNIT : mm
 UNLESS OTHERWISE SPECIFIED
 ASSY LENGTH TOLERANCE

- ≥ 1000mm and ≤ 10000mm = ±200
- > 10000mm and ≤ 20000mm = ±300
- > 20000mm and ≤ 30000mm = ±400
- > 30000mm and above = ±500

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RoHS COMPLIANT

BILL OF MATERIALS

Item	Description
1	SFF-8470 (CX4) DC sl V2
2	A23-6933, OM3 Optical Fiber Cable [OD=3.0mm] <BLUE>
3	CAMERA - Label
4	CAMERA with ATPN - Label
5	FG with QR - Label
6	FG - Label
7	PCBA(s) - Grabber & Camera O/E Module
8	Rubber Band - Black

PACKAGING

Please refer to pg4 for packaging details

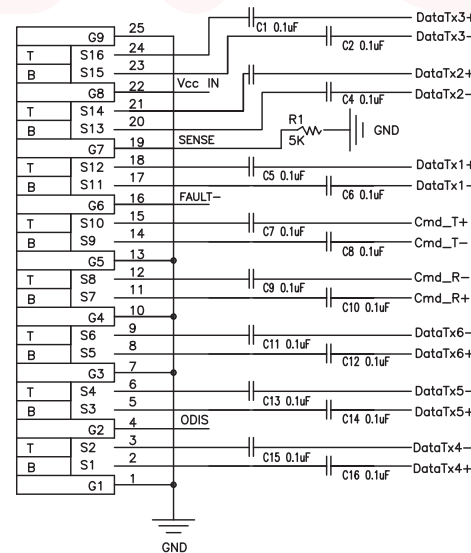
Item	Description
9	Small box
10	Carton box
11	Small box label
12	A79-1890, CX4 AOC booklet



WIRING DIAGRAM

CAMERA		FRAME GRABBER	
DataTx3+	S16	---->	S1 DataRx3+
DataTx3-	S15	---->	S2 DataRx3-
DataTx2+	S14	---->	S3 DataRx2+
DataTx2-	S13	---->	S4 DataRx2-
DataTx1+	S12	---->	S5 DataRx1+
DataTx1-	S11	---->	S6 DataRx1-
Cmd_T+	S10	---->	S7 Cmd_R+
Cmd_T-	S9	---->	S8 Cmd_R-
Cmd_R-	S8	<----	S9 Cmd_T-
Cmd_R+	S7	<----	S10 Cmd_T+
DataTx6-	S6	---->	S11 DataRx6-
DataTx6+	S5	---->	S12 DataRx6+
DataTx5-	S4	---->	S13 DataRx5-
DataTx5+	S3	---->	S14 DataRx5+
DataTx4-	S2	---->	S15 DataRx4-
DataTx4+	S1	---->	S16 DataRx4+

CAMERA		FRAME GRABBER	
G1	GND	GND	G1
G2	ODIS	ODIS	G2
G3	GND	GND	G3
G4	GND	GND	G4
G5	GND	GND	G5
G6	FAULT-	FAULT-	G6
G7	SENSE	SENSE	G7
G8	VCC	VCC	G8
G9	GND	GND	G9



PIN to PCB

NOTE

1. Data rate per lane : 14 Gbps (Max)
2. Power supply voltage : 3.3V
3. Power consumption : 2.8W (Max)
4. Input swing : 200mV ~ 1.0V
5. Output swing : 400mV
6. Operation temperature : 0°C to 70°C
7. RoHS Compliant
8. High speed characteristic

(1) Test equipment

BERT : ML4039 (4CH) or ML4079 (8CH)

Oscilloscope : ML4025

(2) Test STEP (ML4039)

	CH1	CH2	CH3	CH4
STEP1	DTx/Rx1	C_T	C_R	DTx/Rx6
STEP2	DTx/Rx3	DTx/Rx2	DTx/Rx5	DTx/Rx4

(3) Eye Specification

Symbol	Parameter	Input		Output		
		Maximum	Nominal	Maximum	Nominal	Units
X1	Eye mask parameter,Time		0.11		0.29	UI
X2	Eye mask parameter,Time		0.31		0.5	UI
Y1,Y2	Eye mask parameter,Differential unsigned output voltage	Minimum	95.350		150.425	mV
DJ	Deterministic jitter		0.17		0.42	UI
TJ	Total jitter		0.29		0.55	UI

(4) Bit Error Rate < 10⁻¹²

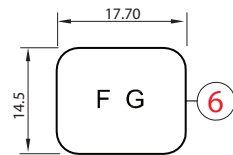
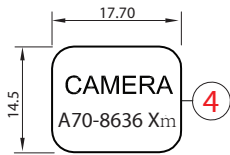
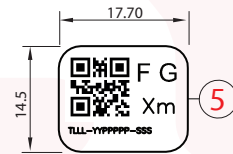
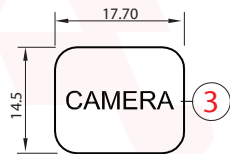
Test pattern : PBR531, 14.0625 Gbps

Test method : 100 seconds without any error counts

9. Signal input impedance : 100 +/- 10% Ohm
10. Signal output impedance : 100 Ohm
11. Input power noise rejection @1MHz : 200mv

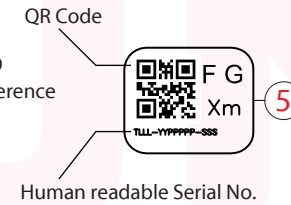
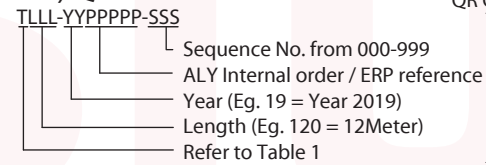


A) Connector-Sticker Details
 Font = Arial



X = Assembly Length

A1) QR Code Guide



Note :
 Both QR Code Content and human readable serial no. must be identical.

Table 1

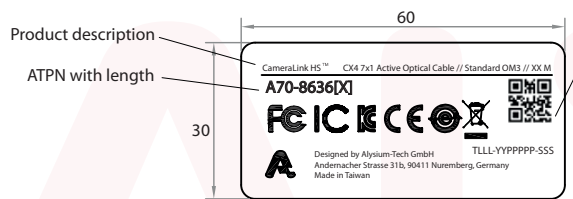
ATPN	Type of cable	Category	T (Code)
A70-8636	OM3 - Standard	7 x 1	1
A70-5034	OM2 - High Flex	7 x 1	3
A70-4022	OM3 - Standard	4 x 1	5
A70-4089	OM2 - High Flex	4 x 1	8





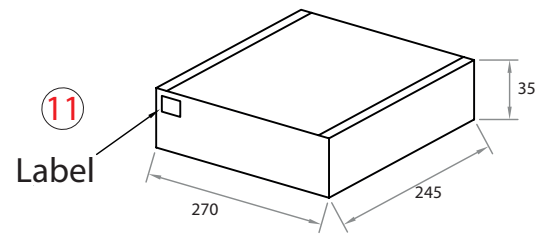
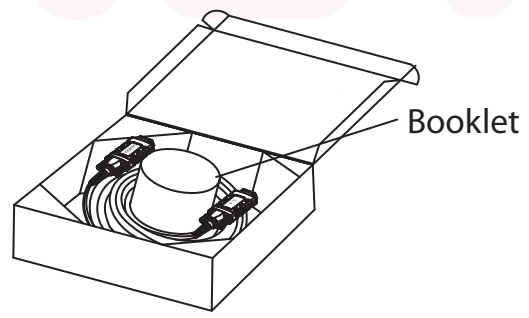
DRAWING REF: **A70-8636**
 DRAWING REF: 14G CX4 7X1 AOC (Die Cast with Screw Lock) Assy.
 REVISION: 02 (Chua 210921) Update Label
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9 B) Small Box Packaging Details

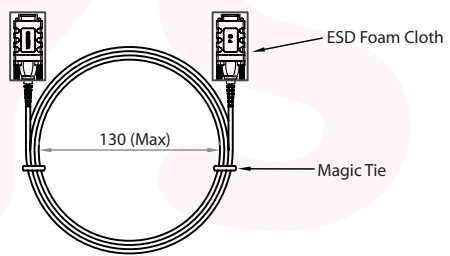


QR Code content:
 TLLL-YYP PPPP-SSS
 Details please refer
 to QR Code guide (pg.3)

11 Small Box Label

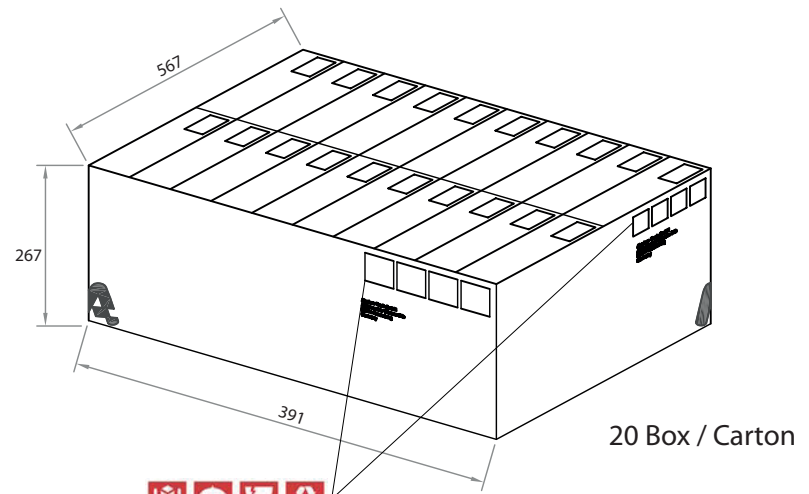
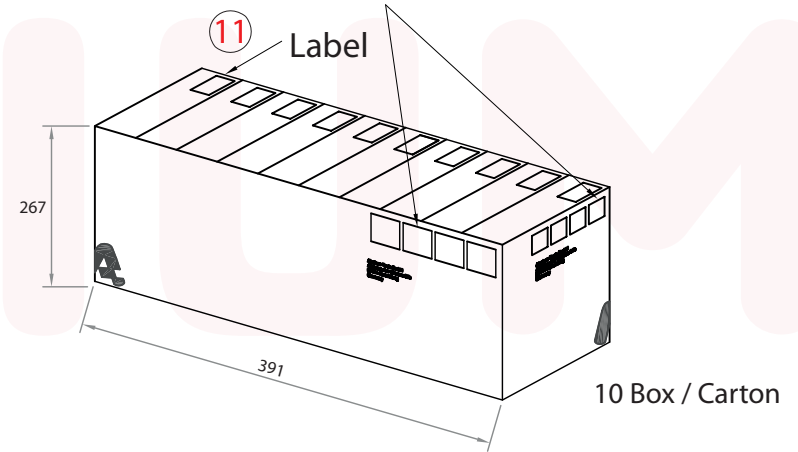


Small Box dimension
 Note:
 This box can pack assembly
 length up to 30M (Max.)



10 C) Carton Box Packaging Details

Label Color code :
 Red Pantone1797 C/U

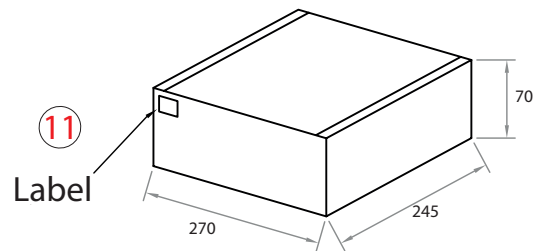
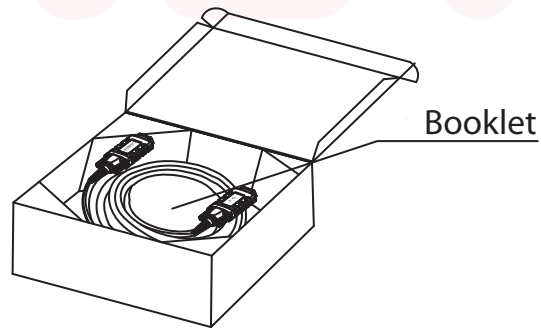
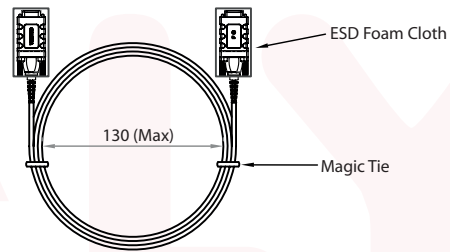


Label Color code :
 Red Pantone1797 C/U



DRAWING REF: **A70-8636**
DRAWING REF: 14G CX4 7X1 AOC (Die Cast with Screw Lock) Assy.
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C) Packaging Details
For product Length >30m.
Max 100m

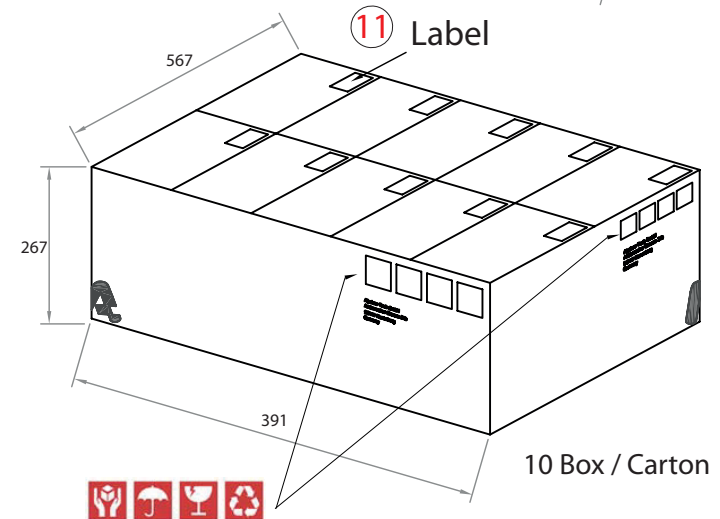
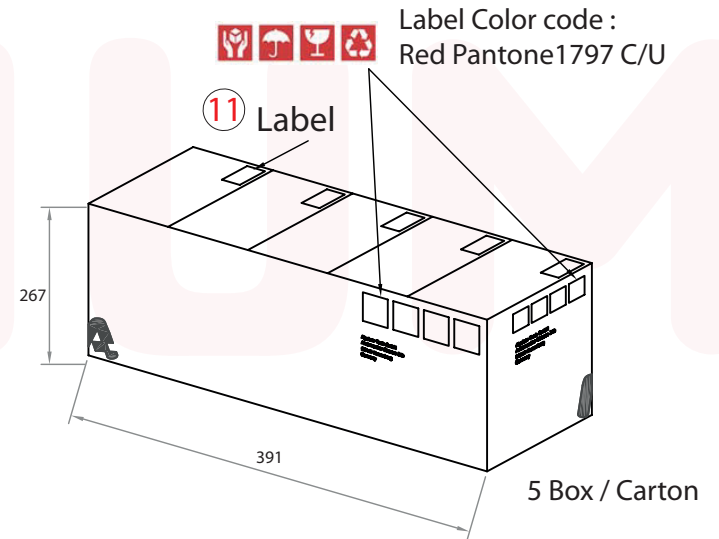


Small Box dimension

Note:

This box can pack assembly length up to 100M (Max.)

10 D) Carton Box Packaging Details





DRAWING REF: **A70-8636**
 DRAWING REF: 14G CX4 7X1 AOC (Die Cast with Screw Lock) Assy.
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12 A79-1890, CX4 AOC booklet

BEDIENUNGSANLEITUNG

Folgen Sie der Reihenfolge dieser Bedienungsanleitung um sicherzustellen, dass Sie mit Hilfe ihrer optischen Verkabelung von ALYSIUM ihren Host erfolgreich mit dem Peripheriegerät verbinden.

- Überprüfen Sie, dass Ihr Host und Ihr Peripheriegerät kompatibel mit der Verkabelung sind. Optische Verkabelungen sind nur für die Benutzung im Innenbereich bestimmt, da die Stecker nicht wasserdicht sind.
- Stecken Sie die optische Verkabelung in den zugehörigen Port an Ihrem Host und danach in das Peripheriegerät. Es sollte sich automatisch einschalten, sobald es ein Signal vom Host empfängt. Falls es sich nicht automatisch einschaltet, überprüfen Sie, dass die Stecker korrekt eingesteckt sind und alle auf dem Host installierten Gerätetreiber korrekt funktionieren.
- Denken Sie daran, das Peripheriegerät über ihr Betriebssystem auszuwerfen, bevor Sie die Verkabelung vom Host entfernen (soweit möglich).



- Eine vollständige Beschreibung der Produktspezifikation finden Sie auf: www.alsysium.com
- Dieses Gerät entspricht den geltenden europäischen Richtlinien und Normen zur elektromagnetischen Verträglichkeit und elektrischen Sicherheit. Europäischer Vertreter: siehe Rückseite.

Bestimmungsgemäße Verwendung: Die Verkabelung enthält keine Komponenten, welche vom Benutzer repariert werden können. Achtung: Gefahr durch Laser.



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ALYSIUM

CameraLink HS™ Active Optical Cable



SETUP STEPS

Follow the setup steps in the order they are given to ensure that your Optical Cable by ALYSIUM correctly connects your host to your peripheral device.

- Ensure that your host and peripheral devices are compatible. Optical Cables by ALYSIUM are for indoor use only, as connectors are not water resistant.
- Insert the Optical Cable into the port on your host and then into the device. The device should turn on automatically when it receives a signal from the host. If not, please make sure the connectors are securely connected and any software drivers installed on the host are working properly.
- When disconnecting the Optical Cable, remember to eject the device on your host before disconnecting the cable (where possible).



Intended Use: The product is connected between a CLHS(TM) host and a CLHS(TM) device. No user intervention is required and the part contains no user-serviceable components.

Be sure to install the product in the place where proper temperatures and humidity exist, otherwise parts of this product may be damaged.

Please consult updated specification sheet at: www.alsysium.com

IMPORTANT INFORMATION: Please read all instructions, heed all warnings, and retain these instructions for future reference. This product is designed to use the power supply from its host and/or peripheral device. Therefore, the power consumption is limited.

This product is a Class 1 laser product and complies with 21 CFR 1040.10 and 1040.11, except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007. It complies with IEC 60825-1:(2014), FCC Part 15 Class B, and has been tested to IEC 60950-1.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

IMPORTANT! Connecting this product to a non-approved electrical source, operating above the recommended absolute maximum conditions may be considered an act of modifying or manufacturing a laser product. The person(s) performing such an act is required by law to reclassify and reidentify the laser product under the provisions of U.S. 21 CFR.

FCC STATEMENT OF COMPLIANCE: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be identified by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna or device
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

CANADIAN COMPLIANCE STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Complies with the Canadian ICES-003 Class B specifications. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. This device complies with RSS 210 of Industry Canada.

EUROPEAN UNION ONLY

This apparatus is in conformance with the valid European directives and standards regarding electromagnetic compatibility and electrical safety.

European representative is:
 Alsysium-Tech GmbH
 Andenacher Strasse 31b
 90411 Nuremberg, Germany



Rev 1.0