Viasat, Inc. Process Area:		Document Number:	Revision:
	Engineering	PR001158	005
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Environmental (	Guidelines for Packaging & Product Labeling	Environmental Compliance	1 of 18

#### 1 Purpose and Scope

The purpose of this document is to cover Recycling, Reuse and other Regulatory marking requirements for Viasat Inc. packaging (shipping materials) and Section 2.4 covers finished product environmental markings. Fulfillment organization has created document number PR000533 that may cover other marking requirements.

### 2 Packaging Documentation Compliance

- 2.1 Use RoHS drawing template PR000522 for all packaging drawings. This will cover the China RoHS packaging requirement. Please add the following statement(s) on Packaging Drawings.
  - All materials used in packaging must not contain heavy metals exceeding the following amounts at the homogenous material level; Cadmium-50 PPM, Lead 100 PPM, Mercury- 100 PPM, Hexavalent Chromium- 100 PPM per Directive 94/62/EC and other applicable EU laws.
  - The European "REACH" Regulation Directive 1907/2006 on Registration, Evaluation & Authorization and Restriction of Chemicals entered into force June 1, 2007. REACH requires more communication between customers, suppliers and manufacturers on substances used in the products and packaging. Given the new legal requirements, Viasat Inc. requests that the supplier provide all substance data for products substance weight/total product weight (wt/ total wt) that is supplied to Viasat Inc. If the supplier does not have this capability; then at a minimum they must provide disclosure to the SVHC's (Substances of Very High Concern) substances contained in their product listed in Appendix XIV of Article 33 of REACH Directive 1907/2006. Please note that it is to the supplier's advantage to provide all substances. As a Supplier to Viasat Inc. you shall be required to automatically provide REACH substance updates when chemical substances of the product or the SVHC list is updated if all substances and amounts are not disclosed upfront. Updated communication is required with out a formal request from Viasat. These updates can be sent to the following email address:

#### Compliance-ProductEnvironmental@viasat.com

 Also, if any SVHC substance is above 0.1% (wt/twt), please provide a Communication Data or MSDS sheet on how to handle, use and properly dispose of this product. The current list of SVHC can be found at on the ECHA Website:

http://echa.europa.eu/chem\_data/authorisation\_process/candidate\_list\_table\_en.asp

 Use PR000634 for packaging Material Declarations if the supplier does not have a form to provide packaging compliance data

#### 3 Packaging Material and Packaging Marking

- 3.1 Shall be designed using reusable and/or recyclable corrugated board, card fiber board, paper board, plastics, paper, foam or wood products and of sufficient strength to protect the product for multiple individual shipments. Please refer to Addendum 1- "Packaging Marking & Allowable Packaging Substance Limit Guidelines for Various Countries" for specific country marking and heavy metal requirements.
  - Corrugated board recycling marks are as follows:



Where: CB = China Req. PAP = EU Req. Corrugated Symbol = USA Req.

Please refer to Country Specific documents for other Material type markings if needed. The symbols above are for reference only and may not represent the latest requirements. It is the supplier's responsibility to following the latest applicable laws and marking requirements.

#### 3.2 Plastic/Foam Marking

- Marking shall adhere to EU SPI Codes per document 1045446, China RoHS and South Korea (Optional) plastic marking requirements may also be required.
- See example below which also includes additional country markings



#### 3.3 Reuse Marking on Packaging

a. When packaging is designed for reuse this marking shall be printed or labeled on the outside of the reusable packaging material



Note: (Fill in arrow color to match other packaging marking)

- 3.4 **Packaging marking where batteries are installed or shipped with the product** Refer to the EHS procedures:
  - PR000757 Safety Guidelines for the Use and Storage of Batteries
  - PR001241 Shipment of Products Containing Lithium Batteries

#### Figure 4: Example of Packaging marking

Example of Packaging mark on bottom of corrugated packaging or corrugated inserts: This will cover 85% of general corrugated marking requirements.

Note: 1. Vendor marking and burst pressure not included in this example

2. Images not to scale



#### Figure 5: Example of General Product marking on 2-<u>sides</u> of cardboard packaging:

Note: Product label marking and ESD marking is not included



b. Apply other industry Marks as required.



#### 3.5 Product & Packaging ID Label/Marking

Product Identification label must include the following:

- 1) Logo: Contact, Viasat, Configuration Management for appropriate logo file (several file types available; eps, bpm, jpg, pdf, etc.)
- 2) Division Street Address- Full Postal Address
- 3) Product part number ID: "1043581" Rev. xx where xx=(current revision).
- 4) Description "RACK MTG KIT, IDU, LINKWAY S2".
- 5) Quantity "QTY-1", (not required for product marking only for packaging marking).
- 6) DOM: Date of Manufacture Format: YYYY-MM-DD (use leading zeros for single digit months) EX.2008-02-30.
- 7) Origin of manufacture (ex. Made in China) Note: Marketers and manufacturers promoting their products as Made in USA must meet the "all or virtually all" standard per "Complying with the Made in USA Standard" via the Federal Trade Commission.
- 8) WEEE marking, China RoHS marking, other regulatory marking (when applicable).
- 9) Arial, true font.
- 10) Label/Marking font size is optional to contract manufacturer depending on external package size. Label/Marking shall readable from a distance of 18"-24" with normal corrected vision.

Insert barcodes as applicable per product.	Viasat: <sup>11</sup> (Division address –Full Postal Address)	If product will ship to China; must specify user friendly period- Viasat uses orange circle with <b>20</b> years in center for server /Viasat
reourements	Part Number: 1043581 Rev 001	designed equipment and per the example above <b>10</b> years
	SN# (if applicable) Description: RACK MTG KIT, IDU, LINKWAY S2	for Computer type equipment (industry standard). Provided the parts used in the design
	<b>Qty-1</b> (note; this is not required on product label only on packaging)	have EU RoHS exempt items.
Per PR000606	DOM: 2008-02-30 Made in China	This marking is used if there are no EU exemptions and the product is 100% china compliant.
WEEE Mark on unit	Or (Additional Compliance marking as	The corresponding label
and packaging per PR000450.	(Regulatory Marking as Applicable)	Regulatory marking must be on packaging label and product, examples are CE, UL, Anatel, etc). Place as design allows on product and packaging labels.

# 3.5.1 Please use Over-pack Marking Specification- Reference PR000607 for Over-pack marking



#### 3.6 Safety Compliance, Power Input Rating, and Common Symbols Guide

- 1. Power rating, format accordance with IEC 60950, examples:
  - a. AC power: 100 240 VAC, 50/60 Hz, 5 A or 100 120 V~, 60 Hz, 30 W or 230 V, 50 Hz, 2 A max. (x2)
  - b. DC power: 28 VDC ----, 5 A max. or 5 A, 24 32 V ----, or 28(±4) VDC ----, 25 W
- 2. Common safety symbols, shall be in accordance with IEC 60417 or ISO 3864-2 or ISO7000:

Function	Symbol	Standard	Usage
Power On	Ι	IEC 60417, No. 5007	Turn on power for device.
Power Off	0	IEC 60417, No. 5008	Turn off power for device.
Power On/Off		IEC 60417, No. 5010	Push on and off hard switch, cut off AC power to primary circuit.
Standby	Ċ	IEC 60417, No. 5009	For secondary switch. (e.g. controlling the Power Supply)
Protect Earth (PE) Ground		IEC 60417, No. 5019	First Ground into the equipment, from Appliance inlet or EMI filter, connected to building/earth. This safety stub needs its independent nut and star washer.
Protective Bonding Ground		IEC 60417, No. 5017	Use internally for all other safety grounding beside PE. Not required for functional Ground.
Chassis Ground	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	IEC 60417, No. 5020	Use on external chassis stub.
Electric Shock hazard		ISO 3864, No. 5036	High voltage warning.
Hot surface warning	<u>Automatica</u>	IEC 60417, No. 5041	High temperature warning.
Two power source	Image: Constraint of the second sec	IEC 60950-1 or equivalent(or similar symbol or wording)	Safety warning to disconnect all input for multiple power sources.

- 3. Common safety colors, shall comply with IEC 60073:
  - a. Ground wiring: Any insulation shall be green-and-yellow.

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## rking & Allowable Packaging Substance Limit Guidelines for Various Countries

			iging Substand				
Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Recy Requi
100	100	100	PET The symbol must be between 0.5 in (1.27 cm) and 1 in (2.54 cm) in height. It must be durable, clearly visible, and easily legible when the package is opened. The abbreviation must be in capital letters.	ISPM 15- addresses the need to treat wood materials that are thicker than 6mm to prevent the transport of insects that could negatively impact an ecosystem. <b>"Bark Free</b> <b>natural wood"</b>		GL	Volunt
100	100	100	Required see notes & Addendum EX. PET	ISPM 15 Marking & "50" in triangle EX. 50 FOR	Required see notes & Addendum EX. 20 PAP	Required see notes & Addendum EX. 70 Recommended for glass recyclables	Use corrug board possib Prefer reusat plastic instea ISPM Pallets

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Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Rec Requi
100	100	100	Required see notes & Addendum 1 EX. Same as Germany	ISPM 15 Marking & "50" in triangle EX.	Same	Same	
<b>√</b> /A	N/A	N/A	Required see notes & Addendum	ISPM 15 Marking & "50" in triangle EX.	Same	Same	Minimi packa desigr minimi waste
N/A	N/A	N/A	N/A	FOR ISPM 15	N/A	N/A	N/A
<b>1</b> /A	N/A	N/A	Voluntary (not required)	ISPM 15	Voluntary, (Not Required)	Voluntary (not required)	Volunt
100	100	100	Required	ISPM 15	Required	Required	YES

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Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Rec Requi
			see notes & Addendum EX. Same as Germany		see notes & Addendum EX. Same as Germany	see notes & Addendum EX. Same as Germany	
100	100	100	Required see notes & Addendum EX. Same as Germany	ISPM 15	Required see notes & Addendum EX. Same as Germany	Required see notes & Addendum EX. Same as Germany	
100	100	100	Required see notes & Addendum EX. Same as Germany	ISPM 15	Required see notes & Addendum EX. Same as Germany	Required see notes & Addendum EX. Same as Germany	
100	100	100		ISPM 15			

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Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Rec Requi
1000	1000	100	Ex. High density polyethylene Required	ISPM 15 And the following mark to denote renewable material for certain wood and corks.	CB "or" CF see note and logo 1 per Document# 1060383 Also Requires logo1 label if is China RoHS compliant or logo 2 label if non- compliant	Paper or fiberboard /plastic	Option recomm per GB 18455-
100	100	100	Required see notes & Addendum EX. Same as Germany	ISPM 15	Required see notes & Addendum EX. Same as Germany	Required see notes & Addendum EX. Same as Germany	
100	100	100	Required see notes & Addendum EX. Same as Germany	ISPM 15	Required see notes & Addendum EX. Same as Germany	Required see notes & Addendum EX. Same as Germany	
000	100	100	N/A	N/A	N/A	N/A	

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Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Rec Requ
<b>v/A</b>	N/A	N/A	$ \underbrace{\bigwedge_{\text{PETE}}}_{\text{PETE}} \circ_{\text{R}} \underbrace{\bigwedge_{\text{O1}}}_{\text{PET}} $ The plastic coding system is used to identify materials from 1-7.	ISPM 15	N/A	N/A	Volunt "WAS " Logo. notes
1000	1000	100	N/A	ISPM 15	N/A	N/A	N/A
100	100	100	The vertical length of the Identification Mark should be 6mm for printing or labels and 8mm or more for embossing.	ISPM 15	The symbol for paper	Aluminum TILE Steel	Law fo Promo Effecti Utiliza Resou Japan (Japa

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Hg PPM	Cr (VI) PPM	Cd	P	lastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Rec Requi
			syml	ow is the bol for clable plastics:		紙	₹ <b>7</b> ₹-₩	Recyc Law)
100	100	100	see Adde EX.	uired notes & endum Same as nany	ISPM 15	Required see notes & Addendum EX. Same as Germany	Required see notes & Addendum EX. Same as Germany	
100	100	100	Adde EX.	uired notes & endum Same as nany	ISPM 15	Required see notes & Addendum EX. Same as Germany	Required see notes & Addendum EX. Same as Germany	

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Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Rec Requi
N/A	N/A	N/A	N/A	ISPM 15	N/A	N/A	N/A
√/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1000	1000	100	Recommend SPI Codes	ISPM 15	N/A	N/A	N/A

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Hg	Cr (VI)	Cd		Pla	astic/Foam	1	N

Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Rec Requi
1000	1000	100	· PET· · · · · · · · · · · · · · · · · · ·	ISPM 15	Recommend SPI code (no requirement)	N/A	Recyc waste accord with <i>Recyc</i> <i>Metho</i> <i>Standa</i> <i>Produc</i> <i>Catego</i> prescr a Minis the Enviro Ordina

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Hg PPM	Cr (VI) PPM	Cd	Plastic/Foam Marking	Wood Marking	Corrugated Cardboard & Corrugated Fiber Board	Metals, Glass, Composite Materials	Recy Requi
100	100	50	Required see notes & Addendum EX. Same as Germany	ISPM 15	Required see notes & Addendum EX. Same as Germany	Required see notes & Addendum EX. Same as Germany	
1000	1000	100	Recommended but not required on VSAT product Plus add SPI Code	ISPM 15	Recommended	N/A	Can R Volunt Green progra Manuf s (not recom d at th The greenr symbo shown