



Date: 21 Sept 2020

To valued Customers of Alpha Power Solutions Ltd(APS)

**Subject: Declaration of environmental compliance for APS's Products**

Dear valued Customers/Distributors,

In view of the increasingly attention on environmental protection, APS shall continue to work closely with our suppliers to assure the compliance of our products with all the legal and statutory requirements about environment friendly material composition, including: RoHS, REACH SVHC, Halogen Free and Conflict Minerals. This letter is to provide additional information and data for your reference how APS support these initiatives and help you as APS's trusted partners to respond to any requests from your end customers regarding the relevant compliance data.

APS also supports the goals and objectives of the Conflict Minerals Policy which aims to prevent the use of conflict minerals that directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo (DRC) or an adjoining country. Conflict minerals include columbite-tantalite(coltan, tantalum), cassiterite(tin), gold, wolframite(tungsten) and their derivatives determined by the policy. APS is committed to working with our customers to supply products that meet customer's requirements.

Please refer to appendices for the analysis summaries that confirm APS's products in compliance with RoHS II directive except for Lead exemption by RoHS 7a(lead in high melting temperature type die attach solders) or 7c (lead in glass or ceramic), IEC Halogen Free and REACH SVHC regulations.

Please feel free to contact our Sales/Marketing for support should you have any further inquiry.

Yours Sincerely,

Prepared by

*Carson Ho*

Approved by

*Tony Chau*

---

Carson Ho – APS SCM Director

---

Tony Chau – APS CEO

Appendices:

1. Compliance data with RoHS II (Directive 2011/65/EU)
2. Compliance data with Halogen free as per IEC 61249-2-21



Appendix 1 – Compliance data with RoHS II (Directive 2011/65/EU)

Device: All series of products

Package Type: TO220 & TO247 (for other package types, please contact APS)

Reported Materials	Unit	Limits of RoHS (ppm)	Test Method	Equipment	SGS Results*	MDL*
Cadmium and cadmium compounds	ppm	100	IEC 62321:2008 or equivalent	ICP-OES	N.D.	2
Lead and lead compounds	ppm	1000	IEC 62321:2008 or equivalent	ICP-OES	40	2
Mercury and mercury compounds	ppm	1000	IEC 62321:2008 or equivalent	ICP-OES	N.D.	2
Hexavalent Chromium compounds	ppm	1000	IEC 62321:2008 or equivalent	ICP-OES	Negative	--
PBBs (Polybrominated biphenyls)	ppm	1000	IEC 62321:2008 or equivalent	ICP-OES	N.D.	5
PBDEs (Polybrominated diphenyl ethers) or PBDOs (Polybrominated diphenyl oxides)	ppm	1000	IEC 62321:2008 or equivalent	ICP-OES	N.D.	

\*MDL: Method Detection Limit

\*N.D.: Not Detected

\*SGS Results may vary slightly year on year but the bottom line should be within RoHS limits defined above



## Appendix 2 – Compliance data with Halogen Free (IEC 61249-2-21)

Device: All series of products

Package Type: TO220 & TO247 (for other package types, please contact APS)

Test item	Unit	Method	Requirement	SGS Results*	MDL*
Chlorine	mg/kg (ppm)	BS EN 14582 or equivalent	<900ppm	N.D.	50
Bromine	mg/kg (ppm)	BS EN 14582 or equivalent	<900ppm	N.D.	50
Chlorine + Bromine	mg/kg (ppm)	BS EN 14582 or equivalent	<1500ppm	N.D.	50

\*MDL: Method Detection Limit

\*N.D.: Not Detected

\*SGS Results may vary slightly year on year but the bottom line should be within RoHS limits defined above