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### Statement of Persistent Organic Pollutants (POP) Compliance

We hereby certify that all fixed and variable resistor series from TT Electronics listed in Appendix A as “No POPs added” are fully compliant with the related requirements of European Union Regulation (EC) 2019/1021 concerning Persistent Organic Pollutants regulations and including (EU) 2020/784.

1. TT Electronics suppliers/partners have confirmed the material composition of this product.
2. TT Electronics has implemented processes to confirm and document compliance.
3. The information provided may be based upon actual test data, or on information from our vendors, raw material suppliers or subcontractors.
4. The checks on POPs are ongoing and we invite enquiries about product series not yet listed or listed as “Unchecked”.

A handwritten signature in black ink, appearing to read 'S. Oxley', with a horizontal line extending from the end of the signature.

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Business Development Engineer  
Fixed and Variable Resistors

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## Appendix A

The following resistive product series have the POP status shown:

Product Category	Series / Style / Start of MPN	POP Status	Example MPN
Potentiometer	PSxxL	No POPs added	PS45L-R01FBR100KN
Potentiometer	PSxxM	No POPs added	PS30M-OPC1FBR100KN
Resistor	1900	Unchecked	DIP-1954-03-1001 -B-F
Resistor	3810	Unchecked	3810-10GKI
Resistor	4500	Unchecked	450112-15MFI
Resistor	4530	Unchecked	453112-100M/100KJF
Resistor	4700	Unchecked	SIP-4701-03-1001-F-B
Resistor	8900	Unchecked	FP-8987-03-1001-B-F
Resistor	1600-1900	Unchecked	C1600-10RJI
<i>Resistor</i>	<i>AP160x / AP190x</i>	<i>See 1600/1900</i>	<i>AP1600-10RJI</i>
Resistor	APC	Unchecked	APC0402AY-1K54WT10
Resistor	ASC	No POPs added	ASC0402-22RFT5
<i>Resistor</i>	<i>AW160x / AW190x</i>	<i>See 1600/1900</i>	<i>AW1600-10RJI</i>
<i>Resistor</i>	<i>B160x / B190x</i>	<i>See 1600/1900</i>	<i>B1600-10RJI</i>
Resistor	BCN	No POPs added	BCN104AB102J7
Resistor	BPC	No POPs added	BPC10103G
Resistor	BPR	No POPs added	BPR10500F
<i>Resistor</i>	<i>C160x / C190x</i>	<i>See 1600/1900</i>	<i>C1600-10RJI</i>
<i>Resistor</i>	<i>CAF</i>	<i>See SQP/CAF/CAW</i>	<i>CAF24701JLF</i>
Resistor	CAR	No POPs added	CAR5V-31K6PI or CAR5LFV3162PA
<i>Resistor</i>	<i>CAW</i>	<i>See SQP/CAF/CAW</i>	<i>CAW210R0JLF</i>
<i>Resistor</i>	<i>CB160x / CB190x</i>	<i>See 1600/1900</i>	<i>CB1600-10RJI</i>
Resistor	CCN	Unchecked	CCN-7800-01-1001-B-B
Resistor	CHC	Unchecked	CHC-CB0565ALF-01-51R1-J
Resistor	CHC Precision	Unchecked	CHC-CH4ALF-03-1002-BB
<i>Resistor</i>	<i>CP160x / CP190x</i>	<i>See 1600/1900</i>	<i>CP1600-10RJI</i>
Resistor	CR	No POPs added	CR0503G-10KFI
Resistor	CSL	No POPs added	CSLSR001FLF
Resistor	CSLS	No POPs added	CSLSR001FLF
<i>Resistor</i>	<i>CVF</i>	<i>See SQM/CVF/CVW</i>	<i>CVF24701JLF</i>
<i>Resistor</i>	<i>CVW</i>	<i>See SQM/CVF/CVW</i>	<i>CVW210R0JLF</i>
Resistor	D	No POPs added	D41C
<i>Resistor</i>	<i>D1206</i>	<i>See PFC-D</i>	<i>D120602-1K0-3K3FB</i>
<i>Resistor</i>	<i>D23</i>	<i>See DIV23</i>	<i>D23-1K0-3K3FB</i>
<i>Resistor</i>	<i>D4 / D5</i>	<i>See D</i>	<i>D41C</i>
<i>Resistor</i>	<i>D55342</i>	<i>See MIL-CHIP</i>	<i>D55342H11B1R00S</i>
<i>Resistor</i>	<i>D6 / D7 / D8 / D9</i>	<i>See D</i>	<i>D61C</i>
<i>Resistor</i>	<i>DIP</i>	<i>See 1900</i>	<i>DIP-1954-03-1001 -B-F</i>
Resistor	DIP-U	Unchecked	DIP-U1959-03-1001 -B-S-2
Resistor	DIV23	Unchecked	D23-1K0-3K3FB or SOT-DIV23LF-03-1001-3301-FB
<i>Resistor</i>	<i>DPB</i>	<i>See M900</i>	<i>DPB-M954-02-1002-FB</i>
Resistor	DPCR	No POPs added	DPCR2512-20KJT18
Resistor	DSC	No POPs added	DSC0603-10KFT5

Resistor	EBW5216	No POPs added	EBW5216PNT-L050JB
Resistor	EBW8518	No POPs added	EBW8518PNT-L050JB
Resistor	EMC	Unchecked	EMC2-33RMI
Resistor	F500	Unchecked	F501
Resistor	FCR	Unchecked	FCR0603-22RJI
Resistor	FP	See 8900	FP-8987-03-1001-B-F
Resistor	FP-U	Unchecked	FP-U8989-05-1001-Q-S-2
Resistor	GBCN	Unchecked	GBCN164AB472J7
Resistor	GCR	Unchecked	GCR0805EW-10KFT3
Resistor	GHVC	Unchecked	GHVC1206-1M0FT18
Resistor	GL	See SOIC-C	GL0ALF021002BAT
Resistor	GP	Unchecked	GP501001001FLFLTR
Resistor	GQ	See QSOP-C	GQ0ALF021002BAT
Resistor	GS	See SOIC-C	GS4ALF021002BAT
Resistor	GUB	Unchecked	GUB-GL0ALF-03-2001-B-A
Resistor	GUS-QS001	See QS001	GUS-QS001LF-03-56R0-K
Resistor	GUS-QS009	See R2R	GUS-QS009LF-01-1002-G
Resistor	GUS-QS0A/ GUS-QS0B / GUS-QS8 / GUS-QSC	See QSOP	GUS-QS0ALF-01-1002-FB
Resistor	GUS-SL0 / GUS-SL8 / GUS-SS4 / GUS-SS7 / GUS-SS8	See SOIC	GUS-SL0ALF-01-1002-F-B
Resistor	GUS-TS005	See TS005	GUS-TS005-4462
Resistor	GUS-TS0A / GUS-TS0B / GUS-TS8 / GUS-TSC	See TSSOP	GUS-TS0ALF-01-1002-FB
Resistor	GWCR	No POPs added	GWCR01005-10KFT20
Resistor	HDSC	No POPs added	HDSC0805-2K0JT3
Resistor	HPDC	Unchecked	HPDC1206-2K0JT5
Resistor	HPWC	No POPs added	HPWC0805-2K0JT3
Resistor	HR	No POPs added	HR0503G-10GYI
Resistor	HTC	No POPs added	TKC-HTC1206LF-100RF
Resistor	HTCR	No POPs added	HTCR0805E-10KFT3
Resistor	HVC	No POPs added	HVC1206-4M7FT3
Resistor	HVD	No POPs added	H08CD-100M/100KFD
Resistor	HVP	No POPs added	HVP04C-100MFB02
Resistor	IGN	Unchecked	IGN-P2525-1234
Resistor	L	No POPs added	L043S331FLF
Resistor	L04 / L05 / L06 / L07 / L08 / L09 / L10 / L11 / L12 / L13 / L14	See L	L043S331FLF
Resistor	LCS	No POPs added	LCS0603-R20DT5LF
Resistor	LHVC	No POPs added	LHVC0603-100KFT5
Resistor	LOB	No POPs added	LOB3-R01JI or LOB3R010FLFLT
Resistor	LR	No POPs added	LRF1206-R02FW or LRC-LRF1206LF-01-R020-F
Resistor	LRC-LR(F)	See LR	LRC-LRF1206LF-01-R020-F
Resistor	LRC-LRF3W	See LRF3W	LRC-LRF3WLF-01-R020-F
Resistor	LRC-LRZ	See LRZ	LRC-LRZ1206LF-R000
Resistor	LRCS/LVC	No POPs added	LRCS0402-R027FT10 or LVC-LVC0402LF-R027-F
Resistor	LRF	See LR	LRF1206-R02FW
Resistor	LRF3W	No POPs added	LRF3W-R02FW or LRC-LRF3WLF-01-R020-F
Resistor	LRF4W	No POPs added	LRF4W-R02FT18
Resistor	LRMA	No POPs added	LRMAM0805-R01FT5
Resistor	LRMAH2512	No POPs added	LRMAH2512B-L50FT5

Resistor	LRMAP2726	No POPs added	LRMAP2726B-1LOFT14
Resistor	LRMAP2817	No POPs added	LRMAP2817B-R005FT
Resistor	LRMAP3920	No POPs added	LRMAP3920C-R0015FT
Resistor	LRMAP4026	No POPs added	LRMAP4026B-1LOFT1
Resistor	LRMAP5930	No POPs added	LRMAP5930B-R0002FT
Resistor	LRZ	No POPs added	LRZ1206-R000 or LRC-LRZ1206LF-R000
Resistor	LVC	See LRCS/LVC	LVC-LVC0402LF-R027-F
Resistor	M55342	See MIL-CHIP	M55342H11B1R00S
Resistor	M83401	Unchecked	M8340101K1001FA
Resistor	M900	Unchecked	DPB-M954-02-1002-FB
Resistor	MFC	Unchecked	MFC0402-R015FT10
Resistor	MFP	No POPs added	MFP1-4K7FI
Resistor	MFR	No POPs added	MFR3-4K7FC
Resistor	MF-S	No POPs added	MF1/2S-3K3JI
Resistor	MIL-CHIP	No POPs added	M55342H11B1R00S or D55342H07B1R00S
Resistor	NAS	No POPs added	NAS1-2K7FI or NAS12701FLF
Resistor	NT	No POPs added	NT1/21000FLF
Resistor	OAR	No POPs added	OAR1-R01JI or OAR1R010JLF
Resistor	OARS	No POPs added	OARS1-R01JI or OARS1R010JLF
Resistor	OAR-TP	No POPs added	OAR1TP-R01JI or OAR1TPR010JLF
Resistor	PCF	No POPs added	PCF0201R-1K54BI or PCF-W0201LF-03-1541-B-P-LT
Resistor	PCR	No POPs added	PCR0805F-10KBI
Resistor	PFC	No POPs added	W0402R-01-1K0BI or PFC-W0402LF-01-1001-B
Resistor	PFC-D	No POPs added	D120602-1K0-3K3FB or PFC-D1206LF-02-1001-3301-FB
Resistor	PFC-D-HT	No POPs added	PFC-D1206HT-02-1001-3301-FB
Resistor	PFC-HT	No POPs added	W0603HT-01-1K0F or PFC-W0603HT-01-1001-F
Resistor	PFC-UD	No POPs added	PFC-UD1206-03-1002-3301-B-S-1
Resistor	PR	No POPs added	PR4Y-10KBI
Resistor	PTS	Unchecked	PTS-P0603LF-1001-B
Resistor	PWC	No POPs added	PWC0603-2K0JI
Resistor	PWP	No POPs added	PWP04-200RJB048
Resistor	QS001	Unchecked	GUS-QS001LF-03-56R0-K
Resistor	QSOP	Unchecked	GUS-QS0ALF-01-1002-FB
Resistor	QSOP-C	Unchecked	GQ0ALF021002BAT
Resistor	R08 / R10 / R15	See RHVD	R08CD-100M/100KFD
Resistor	R2R	Unchecked	GUS-QS009LF-01-1002-G
Resistor	RC	No POPs added	RC55V-31K6BI or RC55LFV3162BA
Resistor	RCP	No POPs added	RC55PV-31K6BI
Resistor	RHVD	No POPs added	R08CD-100M/100KFD
Resistor	SC3	No POPs added	SC3-33RFI or SCW-SC3LF-33R0F
Resistor	SIP	See 4700	SIP-4701-03-1001-F-B
Resistor	SIP-U	Unchecked	SIP-U4709-12-1001-Q-S-2
Resistor	SOIC	Unchecked	GUS-SL0ALF-01-1002-F-B
Resistor	SOIC-C	Unchecked	GL0ALF021002BAT
Resistor	SON	Unchecked	SON-N954LF-01-1002-FB
Resistor	SON-U	Unchecked	SON-UN959LF-03-1001-B-S-2
Resistor	SOT143	Unchecked	SOT143-A002-FB or SOT-SOT143LF-03-A002-FB

Resistor	SOT23	Unchecked	SOT23-3K3-1K0FB or SOT-SOT23LF-03-1001-3301-FB
<i>Resistor</i>	<i>SOT-DIV23</i>	<i>See DIV23</i>	<i>SOT-DIV23LF-03-1001-3301-FB</i>
Resistor	SP20/SP20F	Unchecked	SP20-180RJI or SP201800JLF
Resistor	SPH/SPF	Unchecked	SPF-150RJI or SPF1500JLF
Resistor	SPP	Unchecked	SPP1UL4700JLF
Resistor	SQM/CVF/CVW	Unchecked	SQM10-4K7JB1 or CVF104701JLF
Resistor	SQP/CAF/CAW	Unchecked	SQP2-4K7JB5 or CAF24701JLF
Resistor	T40	Unchecked	T43D-4G7JI or 424371-4M7JI
Resistor	TFHP	Unchecked	TFHP1206D-1K54FT5
<i>Resistor</i>	<i>TJC</i>	No POPs added	<i>TJC0505LF-T3</i>
Resistor	<i>TKC-HTC</i>	<i>See HTC</i>	<i>TKC-HTC1206LF-100RF</i>
Resistor	TS005	Unchecked	GUS-TS005-4462
Resistor	TSSOP	Unchecked	GUS-TS0ALF-01-1002-FB
Resistor	ULR	No POPs added	ULR1-R0015FT2 or ULRB12512R0015FLFSLT
<i>Resistor</i>	<i>ULW</i>	No POPs added	<i>ULW2-33RJA25</i>
<i>Resistor</i>	<i>VB160x / VB190x</i>	<i>See 1600/1900</i>	<i>VB1600-10RJI</i>
Resistor	<i>VC160x / VC190x</i>	<i>See 1600/1900</i>	<i>VC1600-10RJI</i>
<i>Resistor</i>	<i>VRW</i>	No POPs added	<i>VRW25-1M2JI</i>
<i>Resistor</i>	<i>W0402 / W0603 / W0805 / W1206</i>	<i>See PFC</i>	<i>W0402R-01-1K0BI</i>
Resistor	<i>W0603HT / W0805HT / W1206HT</i>	<i>See PFC-HT</i>	<i>W0603HT-01-1K0F</i>
Resistor	W20	No POPs added	W21-3K3JI
Resistor	W30	No POPs added	W31-1K0FA1
Resistor	WA80	No POPs added	WA82-47RJI
Resistor	WA80F	No POPs added	WA84F-15RJI
Resistor	WA80Z	No POPs added	WA83Z-1K5JI
Resistor	WCM	Unchecked	WCM0204-2K49GT3
Resistor	WCR	No POPs added	WCR0201-10KFI or WCR-WCR0201LF-1002-F-PLT
Resistor	WDBR	Unchecked	WDBR1/2-100RKIW
Resistor	WDBR-UL	Unchecked	WDBR1UL-100RKIW
Resistor	WH	No POPs added	WH10-100RJI
Resistor	WHPC	No POPs added	WHPC0508X-10KFT5
Resistor	WHS	No POPs added	WHS10-100RJA02
Resistor	WHS-UL	No POPs added	WHS2UL-100RJA25
Resistor	WIN	No POPs added	WINT0402LF031001B3 or WIN-T0402LF-03-1001-B
Resistor	WL4	No POPs added	WL4-R005JI
Resistor	WMHP	No POPs added	WMHP100-10KJ
Resistor	WMO-S	No POPs added	WMO1/2S-1K5JA5
Resistor	WNCR	Unchecked	WNCR164-4K7JI
Resistor	WPRT	Unchecked	WPRT10AB-1K2JB440
Resistor	WP-S	No POPs added	WP1S-100RJA5
Resistor	WPYP	Unchecked	WPYP10-100KFB
Resistor	WRM	No POPs added	WRM0102C-1K0FI
Resistor	WRM-HP	No POPs added	WRM0204HPC-2K49FT3
Resistor	WRM-HV	No POPs added	WRM0204HV-1M0FT3
Resistor	WSHR	Unchecked	WSHR1/2-100RKIW
Resistor	WSM	No POPs added	WSM2-1K0FI or WSM21001FLFTR
Resistor	WSMHP	No POPs added	WSMHP20-10KJ

Trimmer	44	No POPs added	44GR10KLF
Trimmer	64	No POPs added	64PR10KLF
Trimmer	66	No POPs added	66PFR10KLF
Trimmer	67	No POPs added	67PFR10KLF
Trimmer	68	No POPs added	68PFR10KLF
Trimmer	72	No POPs added	72PR10KLF
Trimmer	82	No POPs added	82PR10KLF
Trimmer	84	No POPs added	84PR10KLF
Trimmer	89	No POPs added	89PR10KLF
Trimmer	90	No POPs added	90PR10KLF
Trimmer	91	No POPs added	91AR10KLF
Turn Counting Dial	2606	No POPs added	2606