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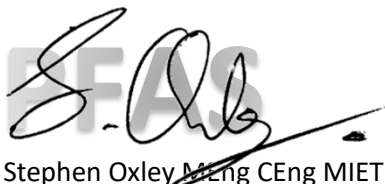
BI Technologies
Circulo de la Amistad 102, Pimsa IV, 21229, Mexicali, B.C., México

17th Oct 2024

Statement on Per- and Polyfluoroalkyl Substances (PFAS) in Fixed and Variable Resistors

We hereby certify that all fixed and variable resistor series from TT Electronics listed in Appendix A as “No PFAS added” contain no intentionally added Per- or Polyfluoroalkyl Substances. Product series listed in Appendix A as “Contains PFAS” contain PFAS of the type and amount shown. All fixed resistor series have been checked and found no PFAS added. Checks on variable resistor series are ongoing. PFAS has been found only in some trimmer products. This statement is based on the OECD definition of PFAS substances, the EPA PFAS Structure and Development lists, and our own product Full Material Declarations.

1. TT Electronics suppliers/partners have confirmed the material composition of these products.
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 PFAS are ongoing and we invite enquiries about product series not yet listed.

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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Fixed and Variable Resistors

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Appendix A

The following resistive product series have been checked and have the PFAS status shown:

Product Category	Series / Style / Start of MPN	PFAS Status	Example MPN
Potentiometer	6181	No PFAS added	6181R10KT5L1.0
Potentiometer	6184	No PFAS added	6184R10KT5L1.0
Potentiometer	6186	No PFAS added	6186R10KT5L1.0
Potentiometer	6187	No PFAS added	6187R10KT5L1.0
Potentiometer	6188	No PFAS added	6188R10KT5L1.0
Potentiometer	7281	No PFAS added	7281R10KT2L.25
Potentiometer	7283	No PFAS added	7283R10KT2L.25
Potentiometer	7284	No PFAS added	7284R10KT2L.25
Potentiometer	7286	No PFAS added	7286R10KT2L.25
Potentiometer	7288	No PFAS added	7288R10KT2L.25
Potentiometer	7381	No PFAS added	7381R10KT2L.5
Potentiometer	7383	No PFAS added	7383R10KT2L.5
Potentiometer	7386	No PFAS added	7386R10KT2L.5
Potentiometer	7388	No PFAS added	7388R10KT2L.5
Potentiometer	7481	No PFAS added	7481R10KT2L.5
Potentiometer	7483	No PFAS added	7483R10KT2L.5
Potentiometer	7486	No PFAS added	7486R10KT2L.5
Potentiometer	7488	No PFAS added	7488R10KT2L.5
Potentiometer	P081	No PFAS added	P081N-161F1CBR100K
Potentiometer	P082	No PFAS added	P082N-161F1CBR100K
Potentiometer	P083	No PFAS added	P083N-161F1CBR100K
Potentiometer	P084	No PFAS added	P084N-161F1CBR100K
Potentiometer	P090	No PFAS added	P090L-02F20BR100K
Potentiometer	P091	No PFAS added	P091N-EA20BR10K
Potentiometer	P092	No PFAS added	P092N-EA20BR10K
Potentiometer	P093	No PFAS added	P093N-EA20BR10K
Potentiometer	P094	No PFAS added	P094N-EA20BR10K
Potentiometer	P095	No PFAS added	P095N-EA20BR10K
Potentiometer	P096	No PFAS added	P096N-EA20BR10K
Potentiometer	P140	No PFAS added	P140KV1-F20BR100K
Potentiometer	P160	No PFAS added	P160KNP-OQC20B100K
Potentiometer	P230	No PFAS added	P230-1FC20BR100K
Potentiometer	PS100	No PFAS added	PS100-1B1BR100K
Resistor	1900	No PFAS added	DIP-1954-03-1001 -B-F
Resistor	3810	No PFAS added	3810-10GKI
Resistor	4500	No PFAS added	450112-15MFI
Resistor	4530	No PFAS added	453112-100M/100KJF
Resistor	4700	No PFAS added	SIP-4701-03-1001-F-B
Resistor	8900	No PFAS added	FP-8987-03-1001-B-F
Resistor	1600-1900	No PFAS added	C1600-10RJI
<i>Resistor</i>	<i>AP160x / AP190x</i>	<i>See 1600/1900</i>	<i>AP1600-10RJI</i>
Resistor	APC	No PFAS added	APC0402AY-1K54WT10
Resistor	ASC	No PFAS added	ASC0402-22RFT5

Resistor	AW160x / AW190x	See 1600/1900	AW1600-10RJI
Resistor	B160x / B190x	See 1600/1900	B1600-10RJI
Resistor	BCN	No PFAS added	BCN104AB102J7
Resistor	BPC	No PFAS added	BPC10103G
Resistor	BPR	No PFAS added	BPR10500F
Resistor	C160x / C190x	See 1600/1900	C1600-10RJI
Resistor	CAF	See SQP/CAF/CAW	CAF24701JLF
Resistor	CAR	No PFAS added	CAR5V-31K6PI or CAR5LFV3162PA
Resistor	CAW	See SQP/CAF/CAW	CAW210R0JLF
Resistor	CB160x / CB190x	See 1600/1900	CB1600-10RJI
Resistor	CCN	No PFAS added	CCN-7800-01-1001-B-B
Resistor	CHC	No PFAS added	CHC-CB0565ALF-01-51R1-J
Resistor	CHC Precision	No PFAS added	CHC-CH4ALF-03-1002-BB
Resistor	CP160x / CP190x	See 1600/1900	CP1600-10RJI
Resistor	CR	No PFAS added	CR0503G-10KFI
Resistor	CSL	No PFAS added	CSL5R001FLF
Resistor	CSLS	No PFAS added	CSLSR001FLF
Resistor	CVF	See SQM/CVF/CVW	CVF24701JLF
Resistor	CVW	See SQM/CVF/CVW	CVW210R0JLF
Resistor	D	No PFAS added	D41C
Resistor	D1206	See PFC-D	D120602-1K0-3K3FB
Resistor	D23	See DIV23	D23-1K0-3K3FB
Resistor	D4 / D5	See D	D41C
Resistor	D55342	See MIL-CHIP	D55342H11B1R00S
Resistor	D6 / D7 / D8 / D9	See D	D61C
Resistor	DIP	See 1900	DIP-1954-03-1001 -B-F
Resistor	DIP-U	No PFAS added	DIP-U1959-03-1001 -B-S-2
Resistor	DIV23	No PFAS added	D23-1K0-3K3FB or SOT-DIV23LF-03-1001-3301-FB
Resistor	DPB	See M900	DPB-M954-02-1002-FB
Resistor	DPCR	No PFAS added	DPCR2512-20KJT18
Resistor	DSC	No PFAS added	DSC0603-10KFT5
Resistor	EBW5216	No PFAS added	EBW5216PNT-L050JB
Resistor	EBW8518	No PFAS added	EBW8518PNT-L050JB
Resistor	EMC	No PFAS added	EMC2-33RMI
Resistor	F500	No PFAS added	F501
Resistor	FCR	No PFAS added	FCR0603-22RJI
Resistor	FP	See 8900	FP-8987-03-1001-B-F
Resistor	FP-U	No PFAS added	FP-U8989-05-1001-Q-S-2
Resistor	GBCN	No PFAS added	GBCN164AB472J7
Resistor	GCR	No PFAS added	GCR0805EW-10KFT3
Resistor	GHVC	No PFAS added	GHVC1206-1M0FT18
Resistor	GL	See SOIC-C	GL0ALF021002BAT
Resistor	GP	No PFAS added	GP501001001FLFLTR
Resistor	GQ	See QSOP-C	GQ0ALF021002BAT
Resistor	GS	See SOIC-C	GS4ALF021002BAT
Resistor	GUB	No PFAS added	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 PFAS added	GWCR01005-10KFT20
Resistor	HDSC	No PFAS added	HDSC0805-2K0JT3
Resistor	HPDC	No PFAS added	HPDC1206-2K0JT5
Resistor	HPWC	No PFAS added	HPWC0805-2K0JT3
Resistor	HR	No PFAS added	HR0503G-10GYI
Resistor	HTC	No PFAS added	TKC-HTC1206LF-100RF
Resistor	HTCR	No PFAS added	HTCR0805E-10KFT3
Resistor	HVC	No PFAS added	HVC1206-4M7FT3
Resistor	HVD	No PFAS added	H08CD-100M/100KFD
Resistor	HVP	No PFAS added	HVP04C-100MFB02
Resistor	IGN	No PFAS added	IGN-P2525-1234
Resistor	L	No PFAS added	L043S331FLF
Resistor	L04 / L05 / L06 / L07 / L08 / L09 / L10 / L11 / L12 / L13 / L14	See L	L043S331FLF
Resistor	LCS	No PFAS added	LCS0603-R20DT5LF
Resistor	LHVC	No PFAS added	LHVC0603-100KFT5
Resistor	LOB	No PFAS added	LOB3-R01JI or LOB3R010FLFLT
Resistor	LR	No PFAS 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 PFAS added	LRCS0402-R027FT10 or LVC-LVC0402LF-R027-F
Resistor	LRF	See LR	LRF1206-R02FW
Resistor	LRF3W	No PFAS added	LRF3W-R02FW or LRC-LRF3WLF-01-R020-F
Resistor	LRF4W	No PFAS added	LRF4W-R02FT18
Resistor	LRMA	No PFAS added	LRMAM0805-R01FT5
Resistor	LRMAH2512	No PFAS added	LRMAH2512B-L50FT5
Resistor	LRMAP2726	No PFAS added	LRMAP2726B-1L0FT14
Resistor	LRMAP2817	No PFAS added	LRMAP2817B-R005FT
Resistor	LRMAP3920	No PFAS added	LRMAP3920C-R0015FT
Resistor	LRMAP4026	No PFAS added	LRMAP4026B-1L0FT1
Resistor	LRMAP5930	No PFAS added	LRMAP5930B-R0002FT
Resistor	LRZ	No PFAS added	LRZ1206-R000 or LRC-LRZ1206LF-R000
Resistor	LVC	See LRCS/LVC	LVC-LVC0402LF-R027-F
Resistor	M55342	See MIL-CHIP	M55342H11B1R00S
Resistor	M83401	No PFAS added	M8340101K1001FA
Resistor	M900	No PFAS added	DPB-M954-02-1002-FB
Resistor	MFC	No PFAS added	MFC0402-R015FT10
Resistor	MFP	No PFAS added	MFP1-4K7FI
Resistor	MFR	No PFAS added	MFR3-4K7FC
Resistor	MF-S	No PFAS added	MF1/2S-3K3JI
Resistor	MIL-CHIP	No PFAS added	M55342H11B1R00S or D55342H07B1R00S
Resistor	NAS	No PFAS added	NAS1-2K7FI or NAS12701FLF
Resistor	NT	No PFAS added	NT1/21000FLF

Resistor	OAR	No PFAS added	OAR1-R01JI or OAR1R010JLF
Resistor	OARS	No PFAS added	OARS1-R01JI or OARS1R010JLF
Resistor	OAR-TP	No PFAS added	OAR1TP-R01JI or OAR1TPR010JLF
Resistor	PCF	No PFAS added	PCF0201R-1K54BI or PCF-W0201LF-03-1541-B-P-LT
Resistor	PCR	No PFAS added	PCR0805F-10KBI
Resistor	PFC	No PFAS added	W0402R-01-1K0BI or PFC-W0402LF-01-1001-B
Resistor	PFC-D	No PFAS added	D120602-1K0-3K3FB or PFC-D1206LF-02-1001-3301-FB
Resistor	PFC-D-HT	No PFAS added	PFC-D1206HT-02-1001-3301-FB
Resistor	PFC-HT	No PFAS added	W0603HT-01-1K0F or PFC-W0603HT-01-1001-F
Resistor	PFC-UD	No PFAS added	PFC-UD1206-03-1002-3301-B-S-1
Resistor	PR	No PFAS added	PR4Y-10KBI
Resistor	PTS	No PFAS added	PTS-P0603LF-1001-B
Resistor	PWC	No PFAS added	PWC0603-2K0JI
Resistor	PWP	No PFAS added	PWP04-200RJB048
Resistor	QS001	No PFAS added	GUS-QS001LF-03-56R0-K
Resistor	QSOP	No PFAS added	GUS-QS0ALF-01-1002-FB
Resistor	QSOP-C	No PFAS added	GQ0ALF021002BAT
<i>Resistor</i>	<i>R08 / R10 / R15</i>	<i>See RHVD</i>	<i>R08CD-100M/100KFD</i>
Resistor	R2R	No PFAS added	GUS-QS009LF-01-1002-G
Resistor	RC	No PFAS added	RC55V-31K6BI or RC55LFV3162BA
Resistor	RCP	No PFAS added	RC55PV-31K6BI
Resistor	RHVD	No PFAS added	R08CD-100M/100KFD
Resistor	SC3	No PFAS added	SC3-33RFI or SCW-SC3LF-33R0F
<i>Resistor</i>	<i>SIP</i>	<i>See 4700</i>	<i>SIP-4701-03-1001-F-B</i>
Resistor	SIP-U	No PFAS added	SIP-U4709-12-1001-Q-S-2
Resistor	SOIC	No PFAS added	GUS-SL0ALF-01-1002-F-B
Resistor	SOIC-C	No PFAS added	GL0ALF021002BAT
Resistor	SON	No PFAS added	SON-N954LF-01-1002-FB
Resistor	SON-U	No PFAS added	SON-UN959LF-03-1001-B-S-2
Resistor	SOT143	No PFAS added	SOT143-A002-FB or SOT-SOT143LF-03-A002-FB
Resistor	SOT23	No PFAS added	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	No PFAS added	SP20-180RJI or SP2018000JLF
Resistor	SPH/SPF	No PFAS added	SPF-150RJI or SPF1500JLF
Resistor	SPP	No PFAS added	SPP1UL4700JLF
Resistor	SQM/CVF/CVW	No PFAS added	SQM10-4K7JB1 or CVF104701JLF
Resistor	SQP/CAF/CAW	No PFAS added	SQP2-4K7JB5 or CAF24701JLF
Resistor	T40	No PFAS added	T43D-4G7JI or 424371-4M7JI
Resistor	TFHP	No PFAS added	TFHP1206D-1K54FT5
<i>Resistor</i>	<i>TJC</i>	No PFAS added	<i>TJC0505LF-T3</i>
Resistor	<i>TKC-HTC</i>	<i>See HTC</i>	<i>TKC-HTC1206LF-100RF</i>
Resistor	TS005	No PFAS added	GUS-TS005-4462
Resistor	TSSOP	No PFAS added	GUS-TS0ALF-01-1002-FB
Resistor	ULR	No PFAS added	ULR1-R0015FT2 or ULRB12512R0015FLFSLT
<i>Resistor</i>	<i>ULW</i>	No PFAS 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>

Resistor	VRW	No PFAS added	VRW25-1M2JI
Resistor	W0402 / W0603 / W0805 / W1206	See PFC	W0402R-01-1K0BI
Resistor	W0603HT / W0805HT / W1206HT	See PFC-HT	W0603HT-01-1K0F
Resistor	W20	No PFAS added	W21-3K3JI
Resistor	W30	No PFAS added	W31-1K0FA1
Resistor	WA80	No PFAS added	WA82-47RJI
Resistor	WA80F	No PFAS added	WA84F-15RJI
Resistor	WA80Z	No PFAS added	WA83Z-1K5JI
Resistor	WCM	No PFAS added	WCM0204-2K49GT3
Resistor	WCR	No PFAS added	WCR0201-10KFI or WCR-WCR0201LF-1002-F-P-LT
Resistor	WDBR	No PFAS added	WDBR1/2-100RKIW
Resistor	WDBR-UL	No PFAS added	WDBR1UL-100RKIW
Resistor	WH	No PFAS added	WH10-100RJI
Resistor	WHPC	No PFAS added	WHPC0508X-10KFT5
Resistor	WHS	No PFAS added	WHS10-100RJA02
Resistor	WHS-UL	No PFAS added	WHS2UL-100RJA25
Resistor	WIN	No PFAS added	WINT0402LF031001B3 or WIN-T0402LF-03-1001-B
Resistor	WL4	No PFAS added	WL4-R005JI
Resistor	WMHP	No PFAS added	WMHP100-10KJ
Resistor	WMO-S	No PFAS added	WMO1/2S-1K5JA5
Resistor	WNCR	No PFAS added	WNCR164-4K7JI
Resistor	WPRT	No PFAS added	WPRT10AB-1K2JB440
Resistor	WP-S	No PFAS added	WP1S-100RJA5
Resistor	WPYP	No PFAS added	WPYP10-100KFB
Resistor	WRM	No PFAS added	WRM0102C-1K0FI
Resistor	WRM-HP	No PFAS added	WRM0204HPC-2K49FT3
Resistor	WRM-HV	No PFAS added	WRM0204HV-1M0FT3
Resistor	WSHR	No PFAS added	WSHR1/2-100RKIW
Resistor	WSM	No PFAS added	WSM2-1K0FI or WSM21001FLFTR
Resistor	WSMHP	No PFAS added	WSMHP20-10KJ
Trimmer	44	Contains PFAS: PTFE, CAS 9002-84-0, 18mg	44GR10KLF
Trimmer	62	No PFAS added	62MR10KLF
Trimmer	64	Contains PFAS: PTFE, CAS 9002-84-0, 38mg	64PR10KLF
Trimmer	66	Contains PFAS: PTFE, CAS 9002-84-0, 75mg	66PFR10KLF
Trimmer	67	Contains PFAS: PTFE, CAS 9002-84-0, 75mg	67PFR10KLF
Trimmer	68	Contains PFAS: PTFE, CAS 9002-84-0, 75mg	68PFR10KLF
Trimmer	72	No PFAS added	72PR10KLF
Trimmer	78	Contains PFAS: PTFE, CAS 9002-84-0, 0.75mg	78PBWR10KLF
Trimmer	82	No PFAS added	82PR10KLF
Trimmer	84	Contains PFAS: PTFE, CAS 9002-84-0, 38mg	84PR10KLF
Trimmer	89	Contains PFAS: PTFE, CAS 9002-84-0, 1mg	89PR10KLF
Trimmer	90	Contains PFAS: PTFE, CAS 9002-84-0, 1mg	90PR10KLF
Trimmer	93	No PFAS added	93PR10KLF
Turn Counting Dial	2606	No PFAS added	2606
Turn Counting Dial	2694	No PFAS added	2694