

Gateway Node - Ground Fault Detection and Environmental Sensor Cape Board Bill of Materials - Drawing# 10021095rA				
Ref	Value	Manufacturer	Manufacturer PN#	Description
C1	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C2	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C3	0.22uF	Murata Electronics	GCM188R71H224KA64D	CAP CER 0.22UF 50V 10% X7R 0603
C4	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C5	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C6	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C7	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C8	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C9	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C10	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C11	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C12	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C13	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C14	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C15	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C16	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C17	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C18	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C19	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C20	1.0uF	AVX Corporation	TCJP105M025R0500	CAP TANT 1UF 25V 20% 0805
C21	4.7uF	Vishay Sprague	593D475X9050D2TE3	CAP TANT 4.7UF 50V 10% 2917
C22	4.7uF	Vishay Sprague	593D475X9050D2TE3	CAP TANT 4.7UF 50V 10% 2917
C23	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C24	10uF	United Chemi-con	EMVE630ADA100MF55G	CAP ALUM 10UF 63V 20% SMD
C25	4.7uF	Vishay Sprague	593D475X9050D2TE3	CAP TANT 4.7UF 50V 10% 2917
C26	4.7uF	Vishay Sprague	593D475X9050D2TE3	CAP TANT 4.7UF 50V 10% 2917
C27	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C28	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C29	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C30	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C31	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603
C32	0.10uF	Kemet	C0603C104K4RAC	CAP, CER, 0.10uF, 16V, 10%, X7R, 0603

Ref	Value	Manufacturer	Manufacturer PN#	Description
J1	1803277	Phoenix	1803277	CONN HEADER RT ANG 2POS 3.81MM
J2	1803277	Phoenix	1803277	CONN HEADER RT ANG 2POS 3.81MM
J3	1881448	Phoenix Contact	1881448	CONN TERM BLK HDR 2.5MM 2POS
J4	70553-0001	Molex	70553-0001	CONN, RT Angle Header
J5	70553-0001	Molex	70553-0001	CONN, RT Angle Header
J6	SSQ-123-03-G-D	Samtec Inc	SSQ-123-03-G-D	CONN RCPT .100" 46POS DUAL GOLD
J7	SSQ-123-03-G-D	Samtec Inc	SSQ-123-03-G-D	CONN RCPT .100" 46POS DUAL GOLD
J8	TSW-105-08-L-D-RA	Samtec	TSW-105-08-L-D-RA	CONN HEADER 10POS .100 DL R/A AU
J9	TSW-105-08-L-D-RA	Samtec	TSW-105-08-L-D-RA	CONN HEADER 10POS .100 DL R/A AU
J10	TSW-105-08-L-D-RA	Samtec	TSW-105-08-L-D-RA	CONN HEADER 10POS .100 DL R/A AU
JP1	961210-6404-AR	3M	961210-6404-AR	CONN HEADER VERT DUAL 10POS GOLD
K1	TLP3542(F)	Toshiba	TLP3542(F)	PHOTOCOUPLER PHOTORELAY 6-DIP
K2	TLP3542(F)	Toshiba	TLP3542(F)	PHOTOCOUPLER PHOTORELAY 6-DIP
K3	TLP3542(F)	Toshiba	TLP3542(F)	PHOTOCOUPLER PHOTORELAY 6-DIP
K4	TLP3542(F)	Toshiba	TLP3542(F)	PHOTOCOUPLER PHOTORELAY 6-DIP
K5	TLP3542(F)	Toshiba	TLP3542(F)	PHOTOCOUPLER PHOTORELAY 6-DIP
K6	TLP3542(F)	Toshiba	TLP3542(F)	PHOTOCOUPLER PHOTORELAY 6-DIP
L1	47uH	Murata Power	82473C	IND 47UH 0.25A MINI DRUM SMD
L2	10uH	Abracon Corp	ASPI-0412FS-100M-T4	INDUCTOR SHLD POWER 10.0UH SMD
L3	10uH	Abracon Corp	ASPI-0412FS-100M-T4	INDUCTOR SHLD POWER 10.0UH SMD
L4	10uH	Abracon Corp	ASPI-0412FS-100M-T4	INDUCTOR SHLD POWER 10.0UH SMD
L5	10uH	Abracon Corp	ASPI-0412FS-100M-T4	INDUCTOR SHLD POWER 10.0UH SMD
MOD1	MER1S4815SC	Murata Power	MER1S4815SC	CONV DC/DC 1KVDC TH 1W 48-15V
MOD2	MEA1D4805SC	Murata Power	MEA1D4805SC	CONV DC/DC 1KVDC 1W 48 +-5V TH
MOD3	MEA1D4805SC	Murata Power	MEA1D4805SC	CONV DC/DC 1KVDC 1W 48 +-5V TH
P1	1803578	Phoenix Contact	1803578	CONN TERMBLOCK PLUG 2POS 3.81MM
P2	1803578	Phoenix Contact	1803578	CONN TERMBLOCK PLUG 2POS 3.81MM
P3	1881325	Phoenix Contact	1881325	CONN TERM BLK PLUG 2.5MM 2POS
P4	50-57-9402	Molex	50-57-9402	CONN HOUSING 2POS .100 W/LATCH
P5	50-57-9402	Molex	50-57-9402	CONN HOUSING 2POS .100 W/LATCH
Q1	LND150N8-G	Supertex	LND150N8-G	MOSFET Small Signal 500V 1KOhm
Q2	LND150N8-G	Supertex	LND150N8-G	MOSFET Small Signal 500V 1KOhm
R1	332	Vishay	CRCW0603332RFKEA	RES 332 OHM 0.1W 1% 0603

Ref	Value	Manufacturer	Manufacturer PN#	Description
R2	332	Vishay	CRCW0603332RFKEA	RES 332 OHM 0.1W 1% 0603
R3	332	Vishay	CRCW0603332RFKEA	RES 332 OHM 0.1W 1% 0603
R4	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R5	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R6	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R7	47.5K	Vishay	CRCW060347K5FKEA	RES 47.5K OHM 0.1W 1% 0603
R8	14.7K	Vishay	CRCW060314K7FKEA	RES 14.7K OHM 0.1W 1% 0603
R9	14.7K	Vishay	CRCW060314K7FKEA	RES 14.7K OHM 0.1W 1% 0603
R10	332	Vishay	CRCW0603332RFKEA	RES 332 OHM 0.1W 1% 0603
R11	332	Vishay	CRCW0603332RFKEA	RES 332 OHM 0.1W 1% 0603
R12	332	Vishay	CRCW0603332RFKEA	RES 332 OHM 0.1W 1% 0603
R13	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R14	47.5K	Vishay	CRCW060347K5FKEA	RES 47.5K OHM 0.1W 1% 0603
R15	14.7K	Vishay	CRCW060314K7FKEA	RES 14.7K OHM 0.1W 1% 0603
R16	14.7K	Vishay	CRCW060314K7FKEA	RES 14.7K OHM 0.1W 1% 0603
R17	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R18	200	Vishay	CRCW0603200RFKEA	RES 200 OHM 0.1W 1% 0603
R19	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R20	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R21	7.87K	Vishay	CRCW06037K87FKEA	RES 7.87K OHM 0.1W 1% 0603
R22	14.7K	Vishay	CRCW060314K7FKEA	RES 14.7K OHM 0.1W 1% 0603
R23	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R24	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R25	5K	BOURNS	3296P-1-502LF	TRIMMER 5K OHM 0.5W PC PIN
R26	8.06K	Vishay	CRCW06038K06FKEA	RES 8.06K OHM 0.1W 1% 0603
R27	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R28	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R29	50K	Bourns	3296P-1-503LF	TRIMMER 50K OHM 0.5W PC PIN
R30	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R31	TBD			TO BE DETERMINED, HEIGHT 0.6mm
R32	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R33	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R34	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603

Ref	Value	Manufacturer	Manufacturer PN#	Description
R35	2.00K	Vishay	CRCW06032K00FKEA	RES 2.00K OHM 0.1W 1% 0603
R36	40.2K	Vishay	CRCW060340K2FKEA	RES 10.0K OHM 0.1W 1% 0603
R37	10K	Bourns	3296P-1-103LF	TRIMMER 10K OHM 0.5W PC PIN
R38	21.5K	Vishay	CRCW060321K5FKEA	RES 21.5K OHM 0.1W 1% 0603
R39	324	Vishay	CRCW0603324RFKEA	RES 324 OHM 0.1W 1% 0603
R40	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R41	2.15K	Vishay	CRCW06032K15FKEA	RES 2.15K OHM 0.1W 1% 0603
R42	499	Vishay	CRCW0603499RFKEA	RES 499 OHM 1/10W 1% 0603 SMD
R43	499	Vishay	CRCW0603499RFKEA	RES 499 OHM 1/10W 1% 0603 SMD
R44	499	Vishay	CRCW0603499RFKEA	RES 499 OHM 1/10W 1% 0603 SMD
R45	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R46	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R47	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R48	10.7K	Vishay	CRCW060310K7FKEA	RES 10.7K OHM 0.1W 1% 0603
R49	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R50	5.62K	Vishay	CRCW06035K62FKEA	RES 5.62K OHM 0.1W 1% 0603
R51	5.62K	Vishay	CRCW06035K62FKEA	RES 5.62K OHM 0.1W 1% 0603
R52	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R53	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R54	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R55	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
R56	10.0K	Vishay	CRCW060310K0FKEA	RES 10.0K OHM 0.1W 1% 0603
RN1	10.0K	Vishay Thin Film	NOMCT16031002AT1	RES ARRAY 10K OHM 8 RES 16SOIC
SW1	CHS-02TB	Copal Electronics Inc	CHS-02TB	SWITCH DIP 2-POS SLIDE SMD 6V
SW2	CHS-08TB	Copal Electronics Inc	CHS-08TB	SWITCH DIP 8-POS SLIDE SMD 6V
TP1	ORANGE	Keystone Electronics	5008	TEST POINT PC COMPACT .063"D ORN
TP2	YELLOW	Keystone Electronics	5009	TEST POINT PC COMPACT .063"D YEL
TP3	BROWN	Keystone	5120	TEST POINT PC COMPACT T/H BROWN
TP4	PURPLE	Keystone	5124	TEST POINT PC COMPACT T/H PURPLE
TP5	GREY	Keystone	5123	TEST POINT PC COMPACT T/H GREY
TP6	ORANGE	Keystone Electronics	5008	TEST POINT PC COMPACT .063"D ORN
TP7	YELLOW	Keystone Electronics	5009	TEST POINT PC COMPACT .063"D YEL
TP8	BLACK	Keystone Electronics	5006	TEST POINT PC COMPACT .063"D BLK

Ref	Value	Manufacturer	Manufacturer PN#	Description
U1	ADR391BUJZ-REEL7	Analog Devices	ADR391BUJZ-REEL7	IC VREF SERIES PREC TSOT-23-5
U2	ISO124U	Texas Instruments	ISO124U	IC OPAMP ISO 50KHZ SGL 28SOIC
U3	AD8641AKSZ-REEL7	Analog Devices Inc	AD8641AKSZ-REEL7	IC OPAMP Bipolar JFET R-R 3.5MHZ
U4	AD8641AKSZ-REEL7	Analog Devices Inc	AD8641AKSZ-REEL7	IC OPAMP Bipolar JFET R-R 3.5MHZ
U5	AD8641AKSZ-REEL7	Analog Devices Inc	AD8641AKSZ-REEL7	IC OPAMP Bipolar JFET R-R 3.5MHZ
U6	AD8641AKSZ-REEL7	Analog Devices Inc	AD8641AKSZ-REEL7	IC OPAMP Bipolar JFET R-R 3.5MHZ
U7	AD8641AKSZ-REEL7	Analog Devices Inc	AD8641AKSZ-REEL7	IC OPAMP Bipolar JFET R-R 3.5MHZ
U8	ADR130BUJZ-REEL7	Analog Devices Inc	ADR130BUJZ-REEL7	IC VREF SERIES PREC 0.5V TSOT-6
U9	AD8641AKSZ-REEL7	Analog Devices Inc	AD8641AKSZ-REEL7	IC OPAMP Bipolar JFET R-R 3.5MHZ
U10	AD8603AUJZ	Analog Devices	AD8603AUJZ-REEL7	IC OPAMP GP R-R CMOS TSOT23-5
U11	MAX31855KASA+	Maxim Integrated	MAX31855KASA+	IC CONV THERMOCOUPLE-DGTL SOIC
U12	HIH6131-000-001	Honeywell	HIH6131-000-001	Humidity Sensor SPI,4%RH,SOIC-8 SMD
U13	LDA100STR	IXYS	LDA100STR	OPTOCOUPLER SGL TRANS-OUT 6-SMD
U14	CAT24C256WI-GT3	On Semiconductor	CAT24C256WI-GT3	IC EEPROM 256KBIT 400KHZ 8SOIC
U15	SN74CB3T3245PWR	Texas Instruments	SN74CB3T3245PWR	IC 2.5/3.3V FET BUS SW 20-TSSOP
U16	SN74CB3T3245PWR	Texas Instruments	SN74CB3T3245PWR	IC 2.5/3.3V FET BUS SW 20-TSSOP
V1	SOLDER_PAD			0.125" x 0.250" TEST PAD