

Annex no. 1

Request for proposal 13/POLON/2023

Technical specification

Order subject:

The order includes the purchase of components needed for the construction of measurement cards for the EGSE.

The offer must be provided by a single supplier, without the possibility of using subcontractors. All components listed in the material lists must be supplied without any substitutions.

CPV code and name: 31711100-4 - Electronic components

1. Description and quantities of the subject contract:

Delivery includes eight different PCBs. Production documentation is available after signing a confidentiality agreement "NDA" with the bidder (Annex no. 6).

Name: Card 1, quantity: 2

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 2
- c. Layer quantity: 2
- d. Laminate type: FR4
- e. TG: 145-150 °C
- f. Laminate thickness: 1,55mm
- g. Soldermask – top/bottom colour: Green
- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free
- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Vcut

BILL OF MATERIALS

Manufacturer	Part Number / Footprint	Description	Quantity
TOSHIBA	TLP3906	Single Optocoupler	12
3M	N2506-6002RB	Connector 6 Male	1
	SOT-23-OT5_N	2Kbit, 400kHz, 1.7V, I2C Serial EEPROM with EUI-48 Node Identity, 5-Pin SOT-23, Industrial Temperature, Tape and Reel	1
	WL-SMCD_0603	WL-SMCD SMT Mono-color Chip LED Diffused, size 0603, Red, 2V, 140deg	12

Diodes inc	AP2204K-5.0TRG1	Ultralow Noise, 200 mA CMOS Linear Regulator	1
ON SEMICONDUCTOR	BSS138LT1G	N-CHANNEL MOSFET WITH DIODE	2
VISHAY SEMICONDUCTOR S	BZX84B10V	Diode Zener Anode Pin 1 Cathode Pin 3 (Pas de pin 2)	12
GENERIC	CC0805_1UF_25V_10%_X7R	Non-polarised capacitor	3
GENERIC	CC0805_100NF_50V_10%_X7R	Non-polarised capacitor	11
FAIRCHILD SEMICONDUCTOR	FDS6912A	100V Dual N-Channel PowerTrench® MOSFET	12
	FIDUCIAL_TOP_C100-200	Fiducial Target	1
	FIDUCIAL_TOP_S100-200	Fiducial Target	3
MURATA	BLM18SG221TN1		4
AVAGO TECHNOLOGIES	HSMF-C113	Tricolor LEDs 1 Cathode Blue, 2 Common Anode, 3 Cathode Red, 4 Cathode Green	1
TEXAS INSTRUMENTS	LM75AIM/NOPB	Digital Temperature Sensor and Thermal Watchdog with Two-Wire Interface	1
ON SEMICONDUCTOR	MC7805ABD2TG	3-Terminal Regulator 1=IN 2=OUT 3=GND	1
MICROCHIP TECHNOLOGY	MCP23008-E/SO	8-Bit I/O Expander with Serial Interface	1
	SOIC-SO28_N	16-Bit I/O Expander with Serial Interface, 28-Pin SOIC, Extended Temperature	1
PHOENIX CONTACT	PHOENIX_1803332	PHOENIX_1803332	1
NXP SEMICONDUCTOR S	PRTR5V0U2X	Ultra Low Capacitance Double Rail-to-Rail ESD Protection Diode	1
GENERIC	R0603_1K_1%_0.1W_100PPM	Resistor - 1%	8
GENERIC	R0603_1M_1%_0.1W_100PPM	Resistor - 1%	12
GENERIC	R0603_10K_1%_0.1W_100PPM	Resistor - 1%	2
GENERIC	R0603_150R_1%_0.1W_100PPM	Resistor - 1%	12
GENERIC	R0805_1M_1%_0.125W_100PPM	Resistor - 1%	2
BOURNS	PWR220T-20-1200F	Resistor - 1%	4
BOURNS	PWR220T-35-12ROF	Resistor - 1%	4
Ohmite	TCH35P24R0JE	Resistor - 1%	4
	TPS127	Test Point	5
VERO TECHNOLOGIES	20-2136	Test Point	1
FISCHER ELEKTRONIK	SK 112 75 SA FISCHER ELEKTRONIK	Heat sink	2

PHOENIX CONTACT	Phoenix_1803633	Phoenix_1803633	1
KRAFTBERG	M3X8/D912-A2		100
FISCHER ELEKTRONIK	THFA 3		12

Name: Card 2, quantity: 3

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 3
- c. Layer quantity: 2
- d. Laminate type: FR4
- e. TG: 145-150 °C
- f. Laminate thickness: 1,55mm
- g. Soldermask – top/bottom colour: Green
- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free
- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Vcut

BILL OF MATERIALS

Manufacturer	Manufacturer Part Number / Footprint	Description	Quantity
TOSHIBA	TLP3906	TLP3906(E)	24
ON SEMICONDUCTOR	BSS138LT1G		2
FAIRCHILD SEMICONDUCTOR	FDS6912A		24
GENERIC	R0603_10K_1%_0.1W_100PPM		2
GENERIC	R0805_1M_1%_0.125W_100PPM		2
GENERIC	R0603_150R_1%_0.1W_100PPM		24
GENERIC	R0603_1M_1%_0.1W_100PPM		24
GENERIC	RMF_330R_1%_0.6W_50PPM_1016-630X250	MBB02070C3300FCT00	16
GENERIC	RMF_33R_1%_0.6W_50PPM_1016-630X250	MBB02070C3309FCT00	32
GENERIC	R0603_1K_1%_0.1W_100PPM		8
	SMD_PAD_1.27X1.27MM	Test Point	5
AVAGO TECHNOLOGIES	HSMF-C113		1
MURATA	BLM18SG221TN1	BLM18SG221TN1D	4

PHOENIX CONTACT	PHOENIX_1803332	MC 1,5/ 8-G-3,81	2
3M	N2506-6002RB		1
MICROCHIP TECHNOLOGY	MCP23008-E/SO		1
TEXAS INSTRUMENTS	LM75AIM/NOPB		1
	MCP23017-E/SO	16-Bit I/O Expander with Serial Interface, 28-Pin SOIC, Extended Temperature	1
	24AA02E48T-I/OT	2Kbit, 400kHz, 1.7V, I2C Serial EEPROM with EU-48 Node Identity, 5-Pin SOT-23, Industrial Temperature, Tape and Reel	1
ON SEMICONDUCTOR	MC7805ABD2TG		1
Diodes inc	AP2204K-3.3TRG1		1
VERO TECHNOLOGIES	20-2136		1
	FIDUCIAL_TOP_S100-200	Fiducial Target	3
	FIDUCIAL_TOP_C100-200	Fiducial Target	1
	WL-SMCD_0603	WL-SMCD SMT Mono-color Chip LED Diffused, size 0603, Red, 2V, 140deg	24
VISHAY SEMICONDUCTOR S	BZX84B10V	BZX84B10VLFHT116	24
NXP SEMICONDUCTOR S	PRTR5V0U2X	PRTR5V0U2X,215	1
GENERIC	CC0805_1UF_25V_10%_X7R		3
GENERIC	CC0805_100NF_50V_10%_X7R		11
PHOENIX CONTACT	Phoenix_1803633		2

Name: Card 3, quantity: 2

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 2
- c. Layer quantity: 4
- d. Laminate type: FR4
- e. TG: 145-150 °C
- f. Laminate thickness: 1,6mm
- g. Soldermask – top/bottom colour: Green

- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free
- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Vcut

BILL OF MATERIALS

Manufacturer	Manufacturer Part Number / Footprint	Description	Quantity
	FIDUCIAL_TOP_C100-200	FTG1, FTG5	2
	FIDUCIAL_TOP_S100-200	FTG2, FTG3, FTG4, FTG6, FTG7, FTG8	6
Texas Instruments	DVE0016A		8
TEXAS INSTRUMENTS	SON50P200X300X80-11N-R94X250		1
TRACO POWER	DCDC_TRACO_TMR6WIR		1
	TPS127	Test Point	3
VERO TECHNOLOGIES	VERO_20-2136		1
TEXAS INSTRUMENTS	SOT95P280X145-5N		4
TEXAS INSTRUMENTS	SOT95P280X145-5N		2
	MTG270_500	Plated Hole	2
PHOENIX CONTACT	PHOENIX_1803332		2
NXP SEMICONDUCTORS	SOP65P640X110-24N		1
MICROCHIP TECHNOLOGY	SOIC127P1030X265-18N		1
	SOT-23-6_MC_MCH	MCP4726A1T-E/CH	8
	SOT-23-CH6_N	MCP3421A2T-E/CH	8
	SOIC-SN8_N	MCP6V02-E/SN	16
TEXAS INSTRUMENTS	SOT95P237X112-3N		8
TEXAS INSTRUMENTS	SOIC127P600X175-8N		1
AVAGO TECHNOLOGIES	LED_AVAGO_HSMF-C113		1
VISHAY	SOIC127P594X363-8N		8
3M	3M_N2530-6002RB		1
FAIRCHILD SEMICONDUCTOR	SOT95P240X130-3N		8
ON SEMICONDUCTOR	SOT95P240X110-3N		4
FAIRCHILD SEMICONDUCTOR	SOT95P240X130-3N		8
ON SEMICONDUCTOR	SOT95P240X110-3N		8
NXP SEMICONDUCTORS	SOT95P240X110-3N		8
Diodes inc	SOT95P280X90-5N		8
ANALOG DEVICES	SOIC127P600X175-8N		8
Würth Elektronik	WE-CNSW_1206		8

MURATA	INDC1608X95N		73
GENERIC	NRC06F2703TRF		1
GENERIC	RN73C2A200RBTG		8
GENERIC	06035A101FAT2A		40
GENERIC	1206GA101JAT2A		8
GENERIC	GRM155R61C104KA88D		90
VISHAY TECHNO	RESC3216X65N		8
GENERIC	232270671004L		8
GENERIC	NRC06F4700TRF		34
GENERIC	ERJ2RKF1000X		4
GENERIC	NRC06F8202TRF		1
GENERIC	NRC06F82R0TRF		8
NEXPERIA	SOIC127P600X175-14N		1
GENERIC	232270675109L		2
MURATA	CAPC1005X55N		16
GENERIC	NRC06F2402TRF		1
MICROCHIP TECHNOLOGY	SOT95P280X145-5N		1
GENERIC	C2012X5R1C226KT		19
GENERIC	RN73C2A18K2BTG		8
MURATA POWER SOLUTIONS	IND_MURATA-PS_8400		6
EPCOS	INDM3225X240N		8
GENERIC	GRM219R61E106KA12D		24
AVX	CAPMP3216X180N		3
GENERIC	C1608C0G1H103J080AA		32
GENERIC	NRC06F1002TRF		16
GENERIC	232270672202L		18
GENERIC	RN73C2A2K0BTG		24
GENERIC	NRC06F2001TRF		40
GENERIC	GRM188R71E105KA12D		42
FAIRCHILD SEMICONDUCTOR	SODFL2512X100N		1
GENERIC	NRC10F1004TRF		2
GENERIC	NRC06F1001TRF		56
GENERIC	232270671002L		13

Name: Card 4, quantity: 3

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 3
- c. Layer quantity: 4
- d. Laminate type: FR4

- e. TG: 145-150 °C
- f. Laminate thickness: 1,55mm
- g. Soldermask – top/bottom colour: Green
- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free
- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Stamp holes

BILL OF MATERIALS

Manufacturer	Manufacturer Part Number / Footprint	Description	Quantity
TOSHIBA	TLP3906		32
ON SEMICONDUCTOR	BSS138LT1G		2
GENERIC	R0603_10K_1%_0.1W_100PPM		2
GENERIC	R0603_150R_1%_0.1W_100PPM		8
GENERIC	R0603_1M_1%_0.1W_100PPM		32
GENERIC	R0805_1M_1%_0.125W_100PPM		2
GENERIC	R0603_1K_1%_0.1W_100PPM		16
	PG-TDSON-8_INF	BSC028N06NSTATMA1	64
	TPS127	Use only in PCB	5
AVAGO TECHNOLOGIES	HSMF-C113		1
MURATA	BLM18SG221TN1		4
PHOENIX CONTACT	1755794 (MSTBVA 2,5/8-G-5,08)		6
3M	N2506-6002RB		1
MICROCHIP TECHNOLOGY	MCP23008-E/SO		1
TEXAS INSTRUMENTS	LM75AIM/NOPB		1
	SOIC-SO28_N	MCP23017-E/SO	1
	SOT-23-OT5_N	24AA02E48T-I/OT	1
ON SEMICONDUCTOR	MC7805ABD2TG		1
Diodes inc	AP2204K-5.0TRG1		1
VERO TECHNOLOGIES	20-2136		1
	FIDUCIAL_TOP_S100-200	Use only in PCB	3
	FIDUCIAL_TOP_C100-200	Use only in PCB	1
	WL-SMCD_0603	Red, 2V, 140deg	16
VISHAY SEMICONDUCTORS	BZX84B10V		32
NXP SEMICONDUCTORS	PRTR5V0U2X		1
GENERIC	CC0805_1UF_25V_10%_X7R		3
GENERIC	CC0805_100NF_50V_10%_X7R		11

PHOENIX CONTACT	PHOENIX_1757077		6
Molex	215326-1083		6
Molex	215328-1082		6

Name: Card 5, quantity: 10

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 10
- c. Layer quantity: 2
- d. Laminate type: FR4
- e. TG: 145-150 °C
- f. Laminate thickness: 1,55mm
- g. Soldermask – top/bottom colour: Green
- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free
- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Vcut

BILL OF MATERIALS

Manufacturer	Manufacturer Part Number / Footprint	Description	Quantity
GENERIC	CC0805_100NF_50V_10%_X7R		11
GENERIC	CC0805_1UF_25V_10%_X7R		3
NXP SEMICONDUCTORS	PRTR5V0U2X		1
VISHAY SEMICONDUCTORS	BZX84B10V		8
	WL-SMCD_0603	Red, 2V, 140deg	8
	FIDUCIAL_TOP_C100-200	Use only in PCB	1
	FIDUCIAL_TOP_S100-200	Use only in PCB	3
VERO TECHNOLOGIES	20-2136		1
Diodes inc	AP2204K-3.3TRG1		1
	SSOP-SS20_N	MCP23008T-E/SS	2
	SOT-23-OT5_N	24AA02E48T-I/OT	1
TEXAS INSTRUMENTS	LM7805CT/NOPB		1
TEXAS INSTRUMENTS	LM75AIM/NOPB		1
3M	N2506-6002RB		1
PHOENIX CONTACT	PHOENIX_1803332		1
MURATA	BLM18SG221TN1		4
AVAGO TECHNOLOGIES	HSMF-C113		1
	TPS127	Test Point	5
GENERIC	R0603_1K_1%_0.1W_100PPM		9

GENERIC	R0805_1M_1%_0.125W_100PPM		2
GENERIC	R0603_10K_1%_0.1W_100PPM		2
VISHAY	SG3R3300JR18		4
GENERIC	RMF_20R_1%_0.6W_50PPM_1016-630X250		8
BOURNS	PWR221T-30-47R0F		12
BOURNS	PWR220T-20-1500F		4
GENERIC	R0603_1M_1%_0.1W_100PPM		8
GENERIC	R0603_150R_1%_0.1W_100PPM		8
ON SEMICONDUCTOR	BSS138LT1G		2
FAIRCHILD SEMICONDUCTOR	FDS6912A		8
TOSHIBA	TLP3906		8
FISCHER ELEKTRONIK		SK 112 75 SA FISCHER ELEKTRONIK	3
PHOENIX CONTACT	Phoenix_1803633		1
KRAFTBERG	M3X10/D7985		52
FISCHER ELEKTRONIK	THFA2		52

Name: Card 6, quantity: 3

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 3
- c. Layer quantity: 4
- d. Laminate type: FR4
- e. TG: 145-150 °C
- f. Laminate thickness: 1,55mm
- g. Soldermask – top/bottom colour: Green
- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free
- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Vcut

BILL OF MATERIALS

Manufacturer	Manufacturer Part Number / Footprint	Description	Quantity
Plated Through Hole: Hole Dia.=2.7mm Pad Dia.=5.0mm	PLATED_HOLE2.7_PAD5.0	Plated Hole	2
GENERIC	CC0603_1UF_25V_10%_X7R	GRM188R71E105KA12D	39
GENERIC	CC0805_22UF_16V_10%_X5R	C2012X5R1C226KT	25

GENERIC	CC0603_100NF_50V_10%_X7R	223858615649	14
GENERIC	CC0805_10UF_25V_10%_X5R	GRM219R61E106KA12D	30
GENERIC	CC0402_100NF_16V_10%_X5R	GRM155R61C104KA88D	41
GENERIC	CC1206_1UF_25V_10%_X7R	C1206C105K3RAC	32
GENERIC	CC0805_2.2NF_25V_1%_COG	C0805C222F3GACTU	82
GENERIC	CC1206_100NF_50V_10%_X7R	VJ1206Y104KXAAT	32
AVX	TCJA106M016R0200	CTE3216-18_10UF_16V_20%_AVX_T CJ	9
GENERIC	CC0603_10NF_50V_10%_X7R	223858615636	3
GENERIC	CC1206_100PF_2KV_5%_COG	1206GA101JAT2A	8
GENERIC	CC0402_100NF_16V_10%_X5R	GRM155R61C104KA88D	1
TALEMA	CMJ-4-102		8
NXP SEMICONDUCTORS	BAV199		24
FAIRCHILD SEMICONDUCTOR	1N4148WS		1
FAIRCHILD SEMICONDUCTOR	BZX84C5V1		8
	FIDUCIAL_TOP_C100-200	Round Fiducial Target, Top Layer, 1.0mm, Top Solder 2.0mm, Keepout =2.0mm	2
	FIDUCIAL_TOP_S100-200	Square Fiducial Target, Top Layer, 1.0mm, Top Solder 2.0mm, Keepout =2.0mm	6
LINEAR TECHNOLOGY	LTC6655BHMS8-4.096#PBF		1
LINEAR TECHNOLOGY	LTC2320HUKG-16#PBF		2
TRACO POWER	TEN 5-1211		1
LINEAR TECHNOLOGY	LT1761ES5-BYP#TRMPBF		2
FAIRCHILD SEMICONDUCTOR	FIN1101K8X		6
TEXAS INSTRUMENTS	SN65LVDS2DBVR		3
TEXAS INSTRUMENTS	TPS62175DQC		2
Diodes inc	AP2204K-5.0TRG1		8
NEXPERIA	74LVC74AD		1
TEXAS INSTRUMENTS	LM75AIM/NOPB		1
LINEAR TECHNOLOGY	LT1763CS8#PBF		1
TEXAS INSTRUMENTS	OPA2277UA		1
MICROCHIP TECHNOLOGY	MCP23008-E/SO		1
MICROCHIP TECHNOLOGY	24AA02E48T-I/OT		1
Würth Elektronik	62002011821		2
PHOENIX CONTACT	1755794 (MSTBVA 2,5/8-G-5,08)		4

3M	N2530-6002RB		1
MURATA POWER SOLUTIONS	84103C		10
MURATA	BLM18AG601SN1		80
Würth Elektronik	744232222		8
EPCOS	B82422H1103K000		8
AVAGO TECHNOLOGIES	HSMF-C113		1
Adam Tech	2PH1R-20-UA		1
Würth Elektronik	62002011121		1
GENERIC	R0402_OR_JUMPER	232270591001L	7
GENERIC	R0402_100R_1%_0.1W_100PPM_50V	ERJ2RKF1000X	10
GENERIC	R0402_5K1_1%_0.0625W_100PPM	232270675102L	4
GENERIC	R0402_1K_1%_0.0625W_100PPM	232270671002L	15
GENERIC	R0603_82K_1%_0.1W_100PPM	NRC06F8202TRF	4
GENERIC	R0402_51R_1%_0.0625W_100PPM	232270675109L	84
GENERIC	R0805_20K_1%_0.125W_100PPM	NRC10F2002TRF	16
GENERIC	R0603_270K_1%_0.1W_100PPM	NRC06F2703TRF	1
GENERIC	R0402_33K_1%_0.0625W_100PPM	232270673303L	1
GENERIC	R0402_62K_1%_0.0625W_100PPM	232270676203L	1
GENERIC	R0603_24K_1%_0.1W_100PPM	NRC06F2402TRF	2
GENERIC	R0402_20K_1%_0.0625W_100PPM	232270672003L	1
GENERIC	R0805_1M_1%_0.125W_100PPM	NRC10F1004TRF	2
GENERIC	R0805_2K_1%_0.125W_100PPM	NRC10F2001TRF	8
GENERIC	R1206_10M_1%_0.25W_100PPM	232272461006	16
GENERIC	R0402_100K_1%_0.0625W_100PPM	232270671004L	8
OHMITE	LVK25R010FER		8
GENERIC	R0402_51K_1%_0.0625W_100PPM	232270674703L	1
GENERIC	R0402_47K_1%_0.0625W_100PPM	232270675103L	1
VISHAY SILICONIX	Si4062DY-T1-GE3		1
	TPS127	Test Point	10
VERO TECHNOLOGIES	20-2136		1
	DWV8_TEX	AMC1311QDWVRQ1	8
	DWV8_TEX	AMC1302QDWVQ1	8
Texas Instruments	UCC12050DVE	UCC12050DVE	8

Name: Card 7, quantity: 8

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 8
- c. Layer quantity: 8
- d. Laminate type: FR4

- e. TG: 145-150 °C
- f. Laminate thickness: 1,55mm
- g. Soldermask – top/bottom colour: Green
- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free
- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Vcut

BILL OF MATERIALS

Manufacturer	Manufacturer Part Number / Footprint	Description	Quantity
3M	N2530-6002RB	E-02002	1
61200621621	61200621621	E-02003	6
Bel Fuse Inc.	OZCH0075AF2E	E-06002	1
Comchip Technology	CZRU52C18	E-04001	1
KEMET	C1210C475K5RACAUTO	E-01004	2
KINGBRIGHT	KPH-1608CGCK	18001-1	2
Microchip	24AA02E48T-I/OT	E-08039	1
Murata	GCJ188R71H104KA12D	E-01001	13
Phoenix Contact	1881325	E-02017	1
Phoenix Contact	1881448	E-02004	1
TDK	CGA3E1X7R1E105K080AC	E-01003	4
Texas Instruments	ISO1640BQDRQ1	E-08004	6
Texas Instruments	TPS7A2633DRVR	E-08003	1
Texas Instruments	TPS781250200DDCT	E-08002	1
Vishay	CRCW06034k70FKEA	E-10256	26
Vishay	CRCW0603270RFKEA	E-10169	2
Vishay	CRCW0603590RFKEA	E-10194	1

Name: Card 8, quantity: 8

PCB SPECIFICATION:

- a. Class (according to IPC-A-600): 2
- b. PCB quantity: 8
- c. Layer quantity: 8
- d. Laminate type: FR4
- e. TG: 145-150 °C
- f. Laminate thickness: 1,55mm
- g. Soldermask – top/bottom colour: Green
- h. Description layer – top/bottom colour: White
- i. Technological margin: 7mm margin
- j. Surface finish: HAL lead-free

- k. Panelisation (Yes/No) – panel dimensions: No
- l. Reference points: Min. 1 mm diameter diamond
- m. Machining: Vcut

BILL OF MATERIALS

Manufacturer	Manufacturer Part Number / Footprint	Discription	Quantity
3M	N2530-6002RB	E-02002	1
Bel Fuse Inc.	OZCH0075AF2E	E-06002	1
Comchip Technology	CZRU52C12	E-04002	16
Comchip Technology	CZRU52C18	E-04001	1
KEMET	C1210C475K5RACAUTO	E-01004	2
KINGBRIGHT	KPH-1608CGCK	18001-1	2
Maxim Integrated	MAX14934BAWE+	E-08001	4
Microchip	24AA02E48T-I/OT	E-08039	1
Murata	GCJ188R71H104KA12D	E-01004, E-01001	9
Nexperia	BSS84AKW,115	E-08001	16
ONsemiconductor	BC847BWT1G	E-08002	16
Phoenix Contact	1881325	E-02017	1
Phoenix Contact	1881448	E-02004	1
TDK	CGA3E1X7R1E105K080AC	E-01003	5
Texas Instruments	TPS7A2633DRVR	E-08003	1
Texas Instruments	TPS781250200DDCT	E-08002	1
Vishay	CRCW06031k00FKEA	E-10209	1
Vishay	CRCW060310k0FKEA	E-10194, E-10278	68
Vishay	CRCW0603100RFKEA	E-10098	17
Wurth Elektronik	612020235121	E-02001	1

2. General Requirements:

The procurement object must be delivered with electrical test reports. The offer must include production and testing costs.