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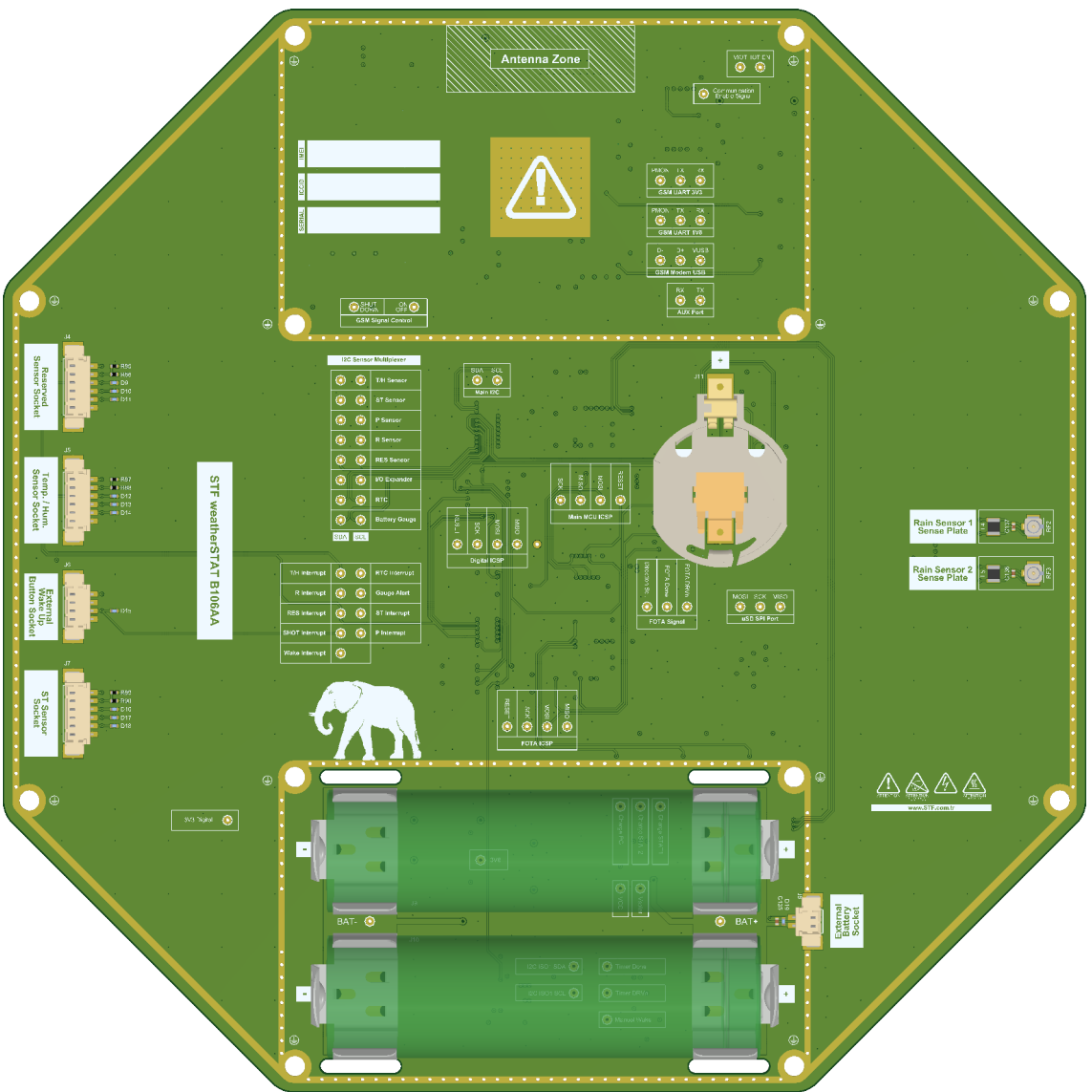
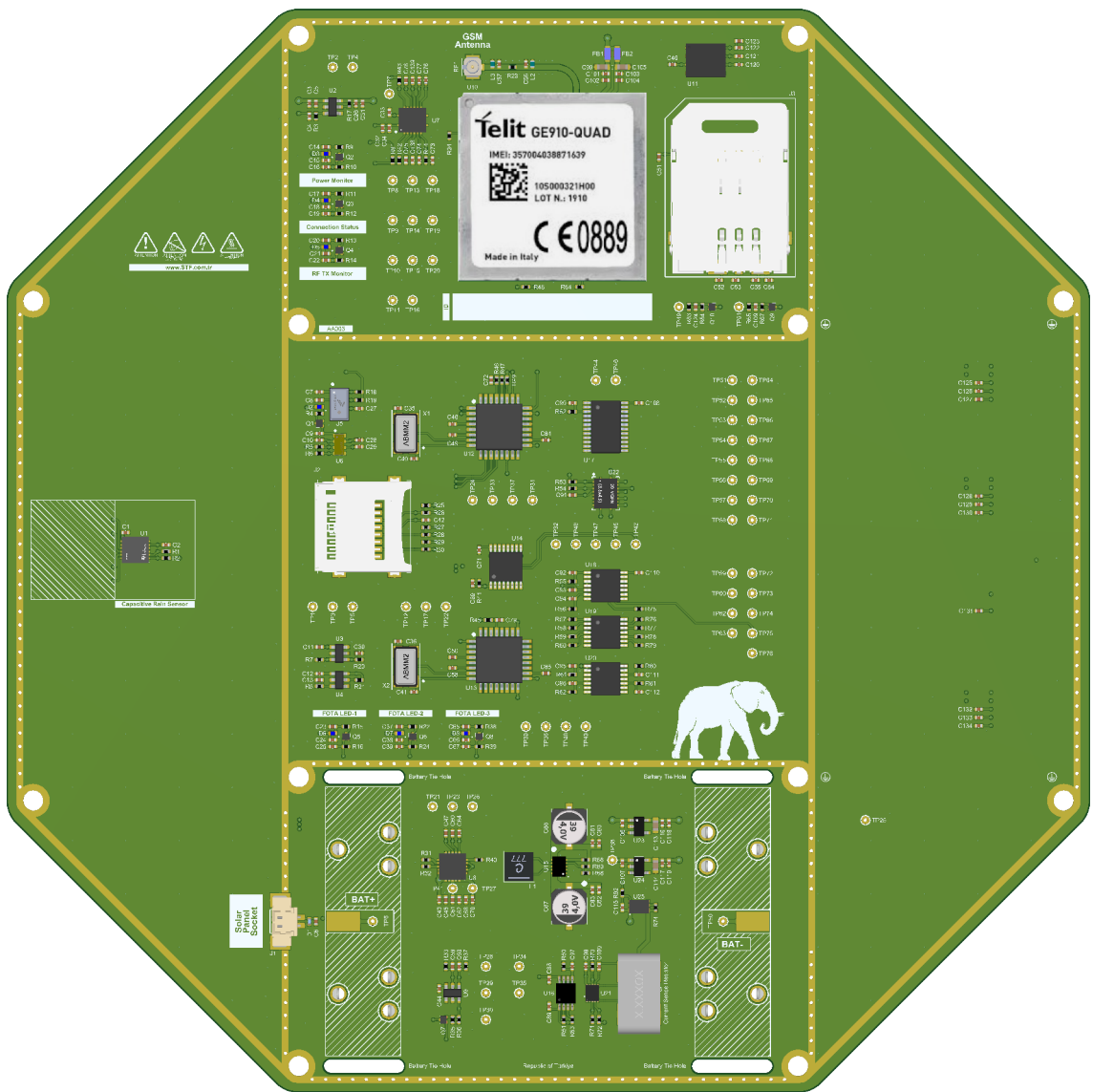
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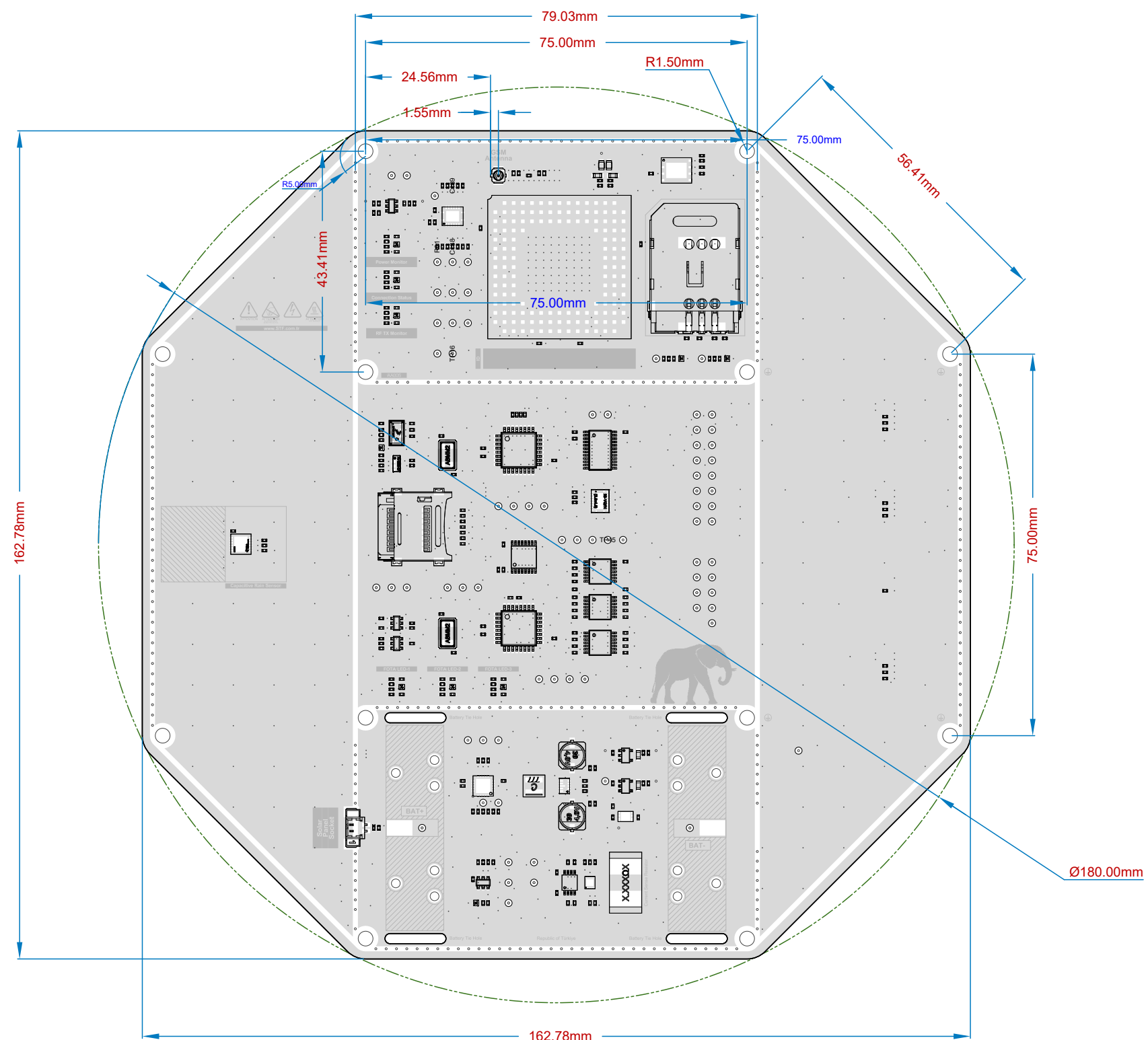
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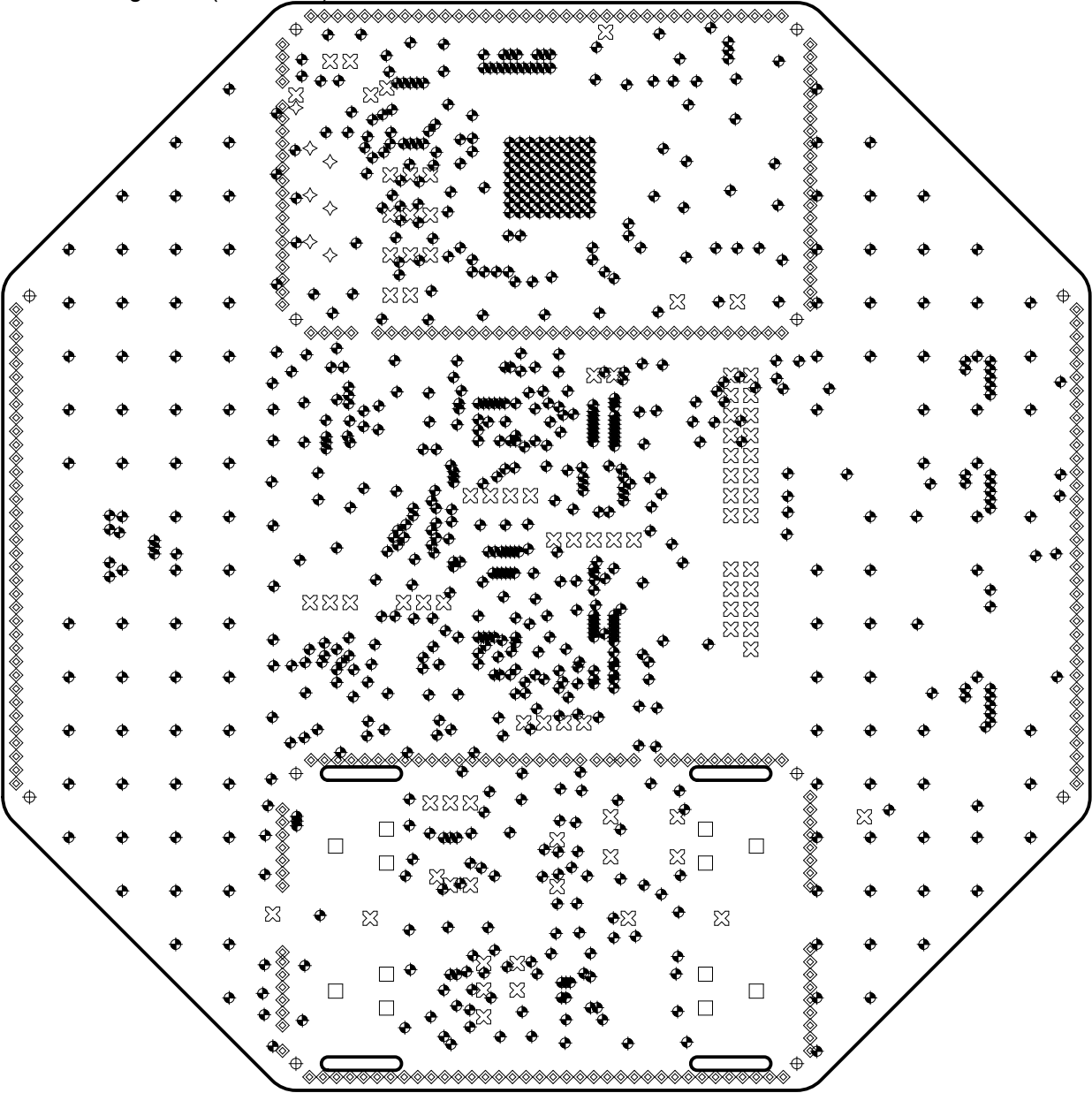
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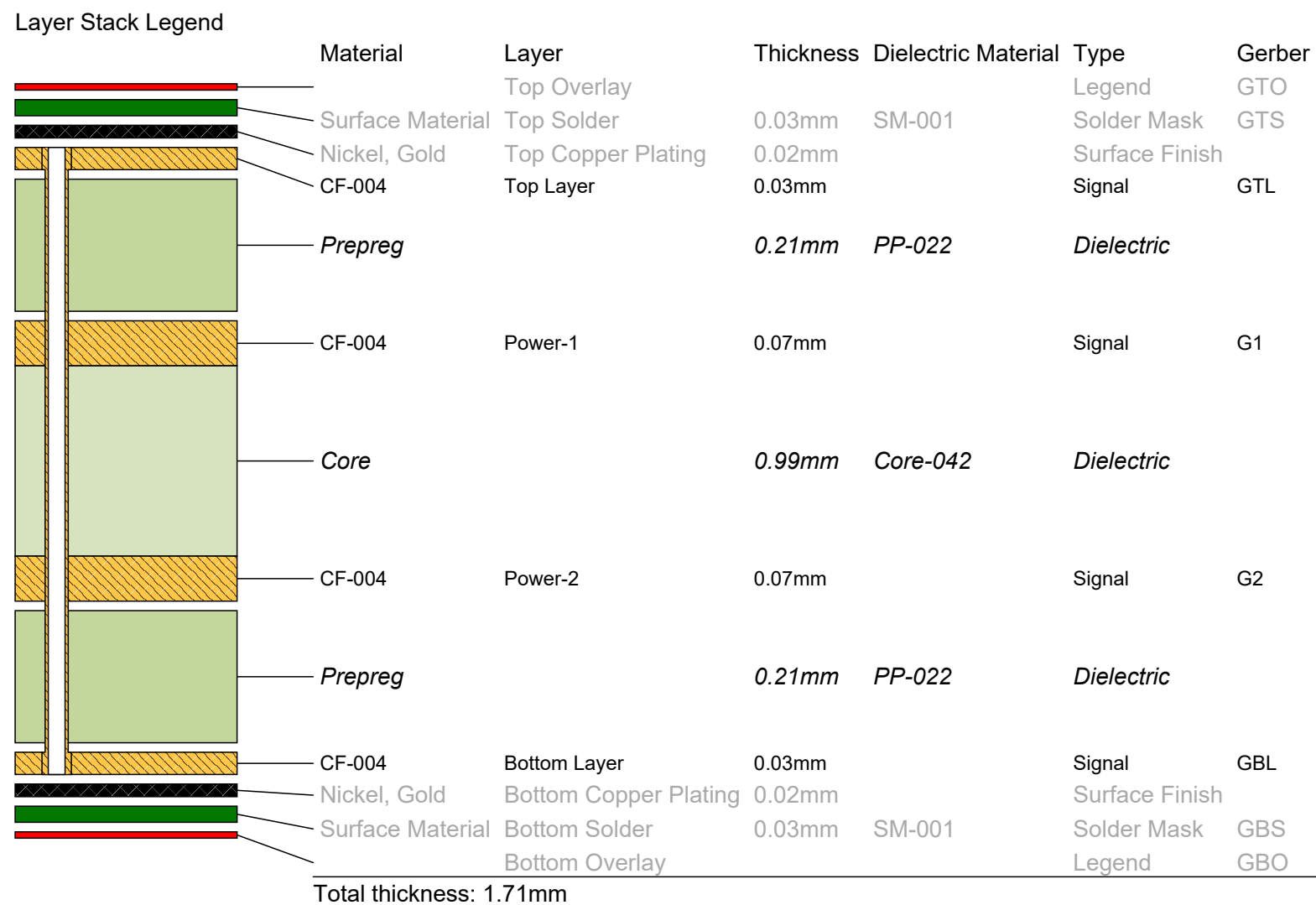
Drill Drawing View (Scale 1:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
◆	832	0.20mm	Plated	None
◇	7	0.25mm	Plated	+/-0.01mm
◆	289	0.50mm	Plated	+/-0.05mm
✕	87	0.50mm	Plated	None
□	12	1.83mm	Plated	None
⊕	12	3.00mm	Plated	None
1239 Total				

A	B	C	D	E	F	G	H
1	Bill Of Materials	Designator	Comment	Quantity	Manufacturer_Name	Manufacturer_Part_Number	1
		C1, C5, C7, C8, C11, C12, C26, C28, C29, C32, C33, C42, C43, C44, C48, C49, C50, C58, C61, C70, C71, C72, C79, C80, C83, C84, C85, C88, C89, C90, C91, C98, C106, C107, C108, C110, C115, C116, C117	Multilayer Ceramic Capacitor	39	AVX	04026D104KAT4A	
		C2, C3, C4, C6, C9, C10, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C27, C30, C31, C37, C38, C39, C46, C47, C51, C52, C53, C54, C59, C60, C63, C64, C65, C66, C67, C69, C73, C74, C75, C76, C77, C78, C81, C82, C92, C93, C94, C95, C96, C97, C102, C104, C109, C111, C112, C118, C119, C120, C121, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C138, C139	Multilayer Ceramic Capacitor	77	Kemet	C0402C330J9RACAUTO	
		C34, C101, C103	Multilayer Ceramic Capacitor	3	Murata Electronics	GRM153R60J105ME95D	
		C35, C36, C40, C41	Multilayer Ceramic Capacitors	4	Kemet	CBR04C130F5GAC	
		C45, C62, C68	Multilayer Ceramic Capacitors	3	Kemet	C0402C475M9PACTU	
2		C55, C100, C122	Multilayer Ceramic Capacitors	3	AVX	04026C474KAT2A	
		C56, C57	Multilayer Ceramic Capacitor	2	AVX	04026C102MAT2A	
		C86, C87	Aluminium Organic Polymer Capacitors	2	Panasonic	16SVPC39MV	
		C99, C113, C114	Tantalum Capacitor	3	AVX	F380J106MMAAH3	
		C105	Tantalum Capacitor	1	AVX	F380J476MMAAXEH3	2
		C136, C137	Multilayer Ceramic Capacitors	2	Vishay	VJ0402Y332KXQCW1BC	
		D1, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19	ESD Suppressors	12	Bussmann / Eaton	0402ESDA-MLP1	
		D2, D3, D4, D5, D6, D7, D8	SMD LED (Blue)	7	ROHM Semiconductor	SMLP13BC8TT86	
		FB1, FB2	Ferrite Bead	2	Murata Electronics	BLM18EG101TZ1D	
		J1	Solar Power Socket	1	Molex	53261-0271	
		J2	Memory Card Connectors	1	Molex	47219-2001	
		J3	SIM Holder Tray	1	Molex	47388-2001	
		J4	6P Tunic Connector	1	Molex	53261-0671	
		J5	T/H Sensor Socket	1	Molex	53261-0671	
		J6	4P SMD Tunic Connector	1	Molex	53261-0471	
		J7	ST Sensor Socket	1	Molex	53261-0671	
		J8	External Battery Socket	1	Molex	53261-0271	
		J9, J10	Battery Clip Holder and Battery	2	Keystone Electronics	254	
		J11	Battery Clip Holder and Battery	1	Keystone Electronics	1070TR	
		L1	Fixed Inductor	1	Coilcraft	XFL4015-471MEB	3
		L2, L3	Fixed Inductor	2	Murata Electronics	LQG15HN1N0S02D	
		L4, L5	Fixed Inductor	2	Taiyo Yuden	CB2518T102K	
		Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10	Bipolar NPN Transistors	10	Nexperia	BC847AQAQZ	
		R1, R2, R5, R6, R18, R19, R31, R40, R45, R46, R47, R49, R51, R52, R53, R54, R63, R65, R71, R72, R83, R85, R86, R87, R88, R89, R90	Thick Film Resistor	27	Vishay	CRCW040210K0FKED	
		R3, R8, R10, R12, R14, R16, R20, R24, R26, R27, R29, R33, R37, R39, R41, R42, R43, R44, R50, R55, R56, R57, R58, R59, R60, R61, R62, R67, R70, R75, R76, R77, R78, R79, R80, R81, R84, R91	Thick Film Resistor	38	Vishay	CRCW040247K0FKED	
		R4, R9, R11, R13, R15, R17, R21, R22, R38, R82	Thick Film Resistor	10	Vishay	CRCW0402330RFKED	
		R7, R35, R36	Thick Film Resistor	3	Vishay	CRCW0402249KFKED	
		R23, R25, R28, R30, R34, R48, R64	Thick Film Resistor	7	Vishay	CRCW04020000Z0ED	
		R32	Thick Film Resistor	1	Vishay	CRCW04021K00FKED	
		R66	Thick Film Resistor	1	Vishay	CRCW0402100KFKED	
		R68	Thick Film Resistor	1	Vishay	CRCW040291K0FKED	
		R69	Thick Film Resistor	1	Vishay	CRCW0402604KFKED	
		R73	Current Sense Resistor	1	TT Electronics	OARSXPR010FLF	
		R74	Thick Film Resistor	1	Vishay	CRCW04022K70FKED	
		RF1	Antenna	1			
		RF2, RF3	Sense Socket	2			
		U1	Capacitive Sensor	1	Texas Instruments	FDC2112QDNTRQ1	
		U2, U4	Power Switch	2	Texas Instruments	TPS22917DBVR	
		U3, U9	Nanopower Timer IC	2	Texas Instruments		
		U5	Board Mount Pressure Sensors	1	NXP Semiconductors	MPL3115A2R1	
		U6	Real Time Clock	1	Micro Crystal	RV-3028-C7	
		U7	Voltage Level Shifter	1	Texas Instruments	SN74AVCH4T245RGYR	
		U8	Battery Charger	1	Microchip	MCP73871-2AAI/ML	
		U10	GE910 2G GSM Module	1			
		U11	MFF2 SIM Chip	1			
		U12, U13	8-bit MicroController	2	Microchip Technology / Atmel	ATMEGA328P-AU	5
		U14	SPI Switch IC	1	Texas Instruments	SN3257QPWRQ1	
		U15	Buck-Boost Converter	1	Texas Instruments	TPS63802DLAT	
		U16	I2C Bus Repeater	1	Texas Instruments	TCA9517ADGKR	
		U17	I2C Switch IC	1	Texas Instruments	TCA9548APWR	
		U18	Logic Gate (NOR)	1	Texas Instruments	SN74HCS7002QPWRQ1	
		U19	Logic Gate (OR)	1	Texas Instruments	SN74HCS32PWR	
		U20	Logic Gate (NAND)	1	Texas Instruments	SN74HCS00PWR	
		U21	Battery Gauge	1	Maxim Integrated	MAX17055ETB+T	
		U22	I2C I/O Expander	1	Texas Instruments	PCF8574RGYR	
		U23, U24	LDO Voltage Regulator	2	Texas Instruments	TPS7A0533PDBVR	
		U25	Battery Management IC	1	Diodes Incorporated	AP9211S-AE-HAC-7	
6		X1, X2	7.3728 MHz	2	ABRACON	ABMM2-7.3728MHZ-E2-T	6
A	B	C	D	E	F	G	H



Transmission Line Structure Table

Impedance Id	Target Impedance	Calculated Impedance	Trace layer	Lower Trace Width	Upper Trace Width	Gap	Reference layers
1	50	50.26	Top Layer	0.70mm	0.70mm		Bottom Layer