







INSTITUTO MAUA DE TECNOLOGIA

Layer Stack Up Detail for: LORANODE v3

Top Layer

Rev.: 1.0

MASCARA ANTI—SOLDA : AZUL SERIGRAFIA : BRANCO

MATERIAL : FR-4 (1.6mm)

COBRE BASE : 35 um (1oz)

Bottom Layer ACABAMENTO : HOT AIR LEVELING METALIZACAO DO FURO : Cu (35um) + SnPb

Capacitor de	Description	Designator	Encapsulamento	Footprint	Obs	Quantity	Valor	Value
Capacitor de	Capacitor de							10.00
Capacition Cap	Capacitor de							
Cearbinics MIDIC Capacitor	tântalo Capacitor	C2		CASE-A		1	10uF ; 6V3	
Cedemics SMD Cede	Cerâmico SMD	C3	0402	0603 - CAP		1	100nF	
Ceamina SMD CS 0402 0603 - CAP 3 100	Capacitor Cerâmico SMD	C4	0402	0603 - CAP		1	100nF	
Capacitor de Capac	Capacitor Cerâmico SMD	C5	0402	0603 - CAP		1	100nF	
Capacitor of Cap	Capacitor de	cc						
Capacitor de Capacitor Capacitor de Capacito	Capacitor							
Capacitor de Co	Cerâmico SMD Capacitor de	C7	0402	0603 - CAP		1	100nF	
Taintalo	tântalo	C8		CASE-A		1	10uF ; 6V3	
CASE A 1 100 F; 6/3	tântalo	C9		CASE-A		1	10uF ; 6V3	
Capacitor de	Capacitor de tântalo	C10		CASE-A		1	10uF : 6V3	
Capacitors	Capacitor de							
Capacitor Cedwinco SMD	Capacitor	CII		CASE-A				
Cediminic SMD	Cerâmico SMD	C12	0402	0603 - CAP		1	100nF	
Cedimico SMD CB1	Cerâmico SMD	C13		0603 - CAP		1		100nF
Header, 14-Pin CN3	Capacitor Cerâmico SMD	CB1		0402		1		0R
Header, 4-Pin CN3	Header, 5-Pin	CN1						
Header, 4-Pin	Header, 14-Pin		ļ					
Led								
Led			0805				WT	
Antenan PCI LORA E1 TAOGLAS 1 1	Led							
TAGGLAS E	Led	D3	0603			1	STATUS - VD	
SOUTH SOUT	Antenna PCI LoRa	E1				1		
USB On-The-Go (ORIG Min-B-Recgotacle, Right Age) Recgotacle, Right A	SMB Straight Connector	F2		SMB V-RI45		1		
Receptacle, Right Angle, SMT, 0.80mm (031*) Resistor R3 0402 0603 1 100K; 5% Resistor R4 0402 0603 1 1787; 5% Resistor R5 0402 0603 1 1787; 5% Resistor R6 0402 0603 1 1787; 5% Resistor R7 0402 0603 1 1787; 5% Resistor R8 0402 0603 1 1787; 5% Resistor R10 0402 0603 1 1787;	USB On-The-Go			JMID_V 10 15				
Type	Receptacle, Right Angle, SMT, 0.80mm (.031") Pitch, Solder Tabs with Back							
JUMPER DE SOLDA 2 VIAS ST		J1		481900001		1		
JUMPER DE SOLDA 2 VIAS 1	JUMPER DE			JUMPER SOLDA 2				
Header, 2-Pin P1	JUMPER DE	121				1		
Header, 2-Pin P2	SOLDA 2 VIAS							
Transistor NPN Q1								
Resistor R1 0402 0603 1 100K; 5% Resistor R2 0402 0603 1 100K; 5% Resistor R3 0402 0603 1 100K; 5% Resistor R4 0402 0603 1 1X5; 5% Resistor R5 0402 0603 1 470R; 5% Resistor R6 0402 0603 1 2K2; 5% Resistor R7 0402 0603 1 170K; 5% Resistor R8 0402 0603 1 100K; 5% Resistor R9 0402 0603 1 10K; 5% Resistor R10 0402 0603 1 10K; 5% Resistor R10 0402 0603 1 10K; 5% Resistor R11 0402 0402 1 NC Resistor R12 0402 0402 1 NC Resistor R13 0402 0402 1 NC Resistor R14 0402 0402 1 NC				SOT23-3N				
Resistor R2 0402 0603 1 100K; 5% Resistor R3 0402 0603 1 100K; 5% Resistor R4 0402 0603 1 1K5; 5% Resistor R5 0402 0603 1 470R; 5% Resistor R6 0402 0603 1 2K2; 5% Resistor R7 0402 0603 1 100K; 5% Resistor R8 0402 0603 1 100K; 5% Resistor R9 0402 0603 1 100K; 5% Resistor R10 0402 0603 1 100K; 5% Resistor R11 0402 0402 1 NC Resistor R12 0402 0402 1 NC Resistor R13 0402 0603 1 100K; 5% Resistor R14 0402 0402 1 NC Mirerocontrolador r			0402				100V · EW	
Resistor R3 0402 0603 1 100K; 5% Resistor R4 0402 0603 1 1K5; 5% Resistor R5 0402 0603 1 2K7; 5% Resistor R6 0402 0603 1 2K2; 5% Resistor R7 0402 0603 1 100K; 5% Resistor R9 0402 0603 1 100K; 5% Resistor R9 0402 0603 1 100K; 5% Resistor R10 0402 0603 1 10K; 5% Resistor R11 0402 0402 1 NC Resistor R12 0402 0402 1 NC Resistor R13 0402 0603 1 100K; 5% Resistor R14 0402 0402 1 NC Microcontrolado r PIC TQFP- PICZ4F3128GA306 PICZ4F3128GA306 UPT TUPT PI								
Resistor R5 0402 0603 1 470R; 5% Resistor R6 0402 0603 1 272; 5% Resistor R7 0402 0603 1 1470R; 5% Resistor R8 0402 0603 1 100K; 5% Resistor R10 0402 0603 1 100K; 5% Resistor R10 0402 0603 1 100K; 5% Resistor R11 0402 0402 1 NC Resistor R12 0402 0402 1 NC Resistor R13 0402 0603 1 100K; 5% Resistor R14 0402 0402 1 NC Microcontrolador rPIC TQFP- TQFP- PIC24F1128GA306 PT Miniature Single- Cell, Fully LIP TQFP-64 64_MICROCHIP 1 VPT Miniature Single- Cell, Fully LIP SQT23-SIN- 1 1 1 1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Resistor R6 0402 0603 1 2K2;5% Resistor R7 0402 0603 1 470R;5% Resistor R8 0402 0603 1 100K;5% Resistor R10 0402 0603 1 10K;5% Resistor R11 0402 0402 1 NC Resistor R12 0402 0402 1 NC Resistor R13 0402 0603 1 100K;5% Resistor R13 0402 0402 1 NC Microcontrolador PIC U1 TQFP- 1 PC24FJ128GA306 U1 TQFP-64 64_MICROCHIP 1 VPT Ministure Single-Cell, Fully Integrated Li-Ion, Li-Polymer AMAGE AMAGE AMAGE AMAGE Management Controller, 42V, 5-Fin SOT-23, Industrial Temperature, Tape and Reel SOT-23-OTS, N 1 1 Regulador de tensão U3 SOT-89 MCP17XXX 1 1	Resistor					1	1K5 ; 5%	
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Resistor R14 0402 0402 1 NC Microcontrolado r PIC U1 TQFP-64 64_MICROCHIP 1 IVPT Miniature Single- Cell, Fully Integrated Li-lon, Li-Polymer Charge Management Controller, 4:2V, 5-Pin SOT-23, Industrial Temperature, Tape and Reel U2 SOT-23-OTS, N 1 Temperature, Tape and Reel U3 SOT-89 MCP17XXX 1 I			_					
Microcontrolado r PIC U1 TQFP-64 64_MICROCHIP 1 /PT TQFP-64 64_MICROCHIP 1 /PT TQFP-64 64_MICROCHIP 1 /PT TQFP-64 64_MICROCHIP 1 /PT TUT TUT TUT TUT TUT TUT TUT	Resistor							
Miniature Single- Cell, Fully Integrated Li-Ion, Li-Polymer Charge Management Controller, 4.2V, 5-Pin SOT-23, Industrial Temperature, Tape and Reel U2 SOT-23-OTS, N 1 Regulador de tensão U3 SOT-89 MCP17XXX 1	Microcontrolado			TQFP-			PIC24FJ128GA306-	
Regulador de tensão SOT23-3N - tensão U3 SOT-89 MCP17XXX 1	Miniature Single- Cell, Fully Integrated Li-Ion, Li-Polymer Charge Management Controller, 4.2V, 5-Pin SOT-23, Industrial Temperature, Tape and Reel						***	
	Regulador de		507.00	SOT23-3N -				
LONA Hallsceiver U4 KNZ9U5 1 KNZ9U5			SOT-89				DNI2002	
	LUKA Iransceiver	U4		KN2903		1	KIN29U3	