## LISTA PARTI SCHEDA 22-301-0 DATA 2/2/2024

Pos.	Qtà	Rif	Descrizione	Value	PN Costruttore	PN Fornitore	Costruttore	Package	PcbFootprint	Note
1	1	BZ1	BUZZER 5V	KPEG242	ABT-414-RC	F-1502726	PRO SIGNAL	THT	BUZZER-P7.62-D1	3.4-NUM
2	1	C1	Cond.Multilayer X7R, 50V 0805	220nF	08051C224K4T2A	MULTICOMP	AVX	SMD0805	SMD0805-MET	100V
3	6	C2,C3,C4,C5,C6,C7	MLCC - SMD/SMT 100V 0.033uF X7R 0603 10%	33nF	C0603C333K1RACTU	MULTICOMP	KEMET	SMD0603	SMD0603	100V
4	63	C8,C9,C10,C11,C12,C13,C		100nF	C0603C104K5RACTU	M:80-C0603C104K5R	KEMET	SMD0603	SMD0603	50V, X7R
		14,C15,C16,C17,C18,C19,	•							
		C20,C30,C31,C32,C33,C34								
		,C35,C36,C37,C39,C40,C4								
		9,C50,C51,C52,C53,C55,C								
		56,C59,C63,C68,C73,C77,								
		C80,C85,C87,C88,C89,C90								
		,C91,C93,C94,C97,C98,C9								
		9,C100,C101,C102,C103,C								
		104,C105,C107,C108,C11								
		0,C115,C116,C117,C118,C								
		119,C120,C121								
5	3	C21,C22,C23	MLCC - SMD/SMT 50V 68pF COG (NP0) 0603 2%	68pF	C0603C680G5GACTU	M:80-C0603C680G5G	KEMET	SMD0603	SMD0603	100V
6	20	C38,C41,C42,C43,C44,C45	MLCC - SMD/SMT 50V 0.033uF X7R 0603 10%	33nF	C0603C333K5RACTU	M: 80-C0603C333K5R	KEMET	SMD0603	SMD0603	50V, X7R
		,C46,C47,C48,C78,C79,C8								
		1,C82,C83,C84,C109,C111								
		,C112,C113,C114								
7	7	C54,C60,C61,C69,C70,C71	Cond.Elt.Tantalio 35V SIZE C	4u7	T491C475K035AT	R- 538-2537	KEMET	TNT SIZE C	ETANT-C	35V
		,C72								
8	2	C57,C58	Cond.Elt.allumnio 35V SIZE C	33uF	EEEFT1V330AR	R-729-6267	PANASONIC	ELT.ALL. SIZE C	ALLSIZEC	35V,
										360moHm
										, 240mA
9	4	C62,C64,C74,C75	Cond.Multilayer X7R, 50V 1210	2u2F	C1210C225K5RACTU	R-691-1246	KEMET	SMD1210	SMD1210	50V, X7R
10	1	C65	Cond.Multilayer X7R, 50V 1210	2u2F	C1210C225K5RACTU	R-691-1246	KEMET	SMD1210	SMD1210	C0603C10
										4K5RACTU
11	1	C66	Cond.Multilayer X7R, 50V 0603	2n7F	C0603C272K5RACTU	MULTICOMP		SMD0603	SMD0603	50V
12	1	C67	MLCC - SMD/SMT 50V 47pF COG 0603 5%	47pF	C0603C470J5GACTU	MULTICOMP		SMD0603	SMD0603	50V
13	1	C76	MLCC - SMD/SMT 50V 470pF COG(NP0) 0603 5%	470pF	C0603C471K5RACTU	MULTICOMP	KEMET	SMD0603	SMD0603	100V
14	1	C86	MLCC X7R, 10V 0805	10uF	C0805C106K8RACTU	KEMET	KEMET	SMD0805	SMD0805-MET	10V, X7R
15	1	C92	MLCC X7R, 10V 1206	4u7	VARI	VARI	KEMET	SMD1206	SMD1206	10V, X7R
16	2	C95,C96	MLCC - SMD/SMT 10V 22pF COG (NP0) 0603 10%	22pF	C0603C220K8GACTU	M: 80-C0603C220K8GACTU	KEMET	SMD0603	SMD0603	10V, X7R
17	1	C106	Cond Alluminio Elt, 35V SIZE B	3u3F	T491B105K035AT	R-708-5884	PANASONIC	ALSIZEB	ALLSIZEB	35V
Τ/	т	C100	Cond Andrillino Lit, 334 SIZE D	JuJi	1 ASTOTOSIOSSAI	N-700-300 <del>4</del>	INTOUNIC	ALJIZED	ALLJILLD	J J V

Pos.	Qtà	Rif	Descrizione	Value PN Costruttore	PN Fornitore	Costruttore	Package	PcbFootprint	Note
18	19	DL1,DL2,DL3,DL4,DL5,DL6	Diodo led smd 0805	GIALLO KP-2012YD	F-2449812	KINGBRIGHT	SMD0805	LED0805-MET-12	
		,DL7,DL8,DL9,DL10,DL15,							
		DL16,DL17,DL18,DL19,DL							
		21,DL22,DL23,DL26							
19	6	DL11,DL12,DL13,DL14,DL	Diodo led smd 0805	VERDE KP-2012SGD	F-2449804	KINGBRIGHT	SMD0805	LED0805-MET-12	
		24,DL25							
20	1	DL20	Diodo led smd 0805	BLU KP-2012PBC	F-8529884	KINGBRIGHT	SMD0805	LED0805-MET-12	
21	2	D1,D3	High-speed switching diodes	BAS16H BAS16H	F-1907598	NEXPERIA	SOD123F	SOD123F/1-2	200mA
22	3	D2,D7,D8	Diodo Schottky	SS28 SS28	R-808-0436	ON	SMB	SMB-12	50A pk
23	4	D4,D11,D12,D15	Diodo Schottky	MBRA3401MBRA340T3G	R-688-0502	ON	SMA	SMA-12	3A
24	5	D5,D6,D13,D14,D16	Fast-speed switching diodes	1N4148WT1N4148WT	F-2453270	ON	SOD523F	SOD523F1-2	300mA
25	1	D9	Diodo Zener 20V	BZT52H-2(BZT52H-B20,115	F-2069423	NEXPERIA	SOD123F	SOD123F/2-1	20V
26	1	D10	doppio Diodo Schottky	VS-MBR60 VS-MBR6045WT-N3	F-2860181	VISHAY	TO-247AC	TO247DD-NUMERAT	
	_		deppis 2 read constant,						CON
									DISSIPATO
									RE AAVID
									529801B0
									2500G
									23000
27	2	FR1,FR2	Ripristinabile, 0.5A, Ttr=1s, Itr=1A	500mA SMD050F-2.	M-650-SMD050F-2	LittleFuse	SMD050F-2.	SMD050F TYCO	
28	2	FR3,FR4	Ripristinabile, 0.3A, Ttr=1s, Itr=1A	300mA SMD030F-2	M-650-SMD030F-2	LittleFuse	SMD030F	SMD030F_TYCO	
29	6	F1,F2,F3,F4,F5,F6	25, 10. 25, 10. 27, 10. 25, 10. 27, 10.	FORO HEART	333 32 333. 2			MH3.5-CORONA 7	
30	1	J1	Connettore MINIFIT 2 x 4 P.4.2	MOLEX 39-39-29-9089	D-WM7244-ND	MOLEX	THT	39299083-MOLEX	
31	2	J2,J3	Connettore ULTRAFIT 2 x 8 P.4.5	MOLEX 17: 172298-8116		MOLEX	THT	1722981116-MOLEX	
32	1	J4	Connettore MINIFIT 2 x 3 P.4.2	MOLEX 39-39-29-9069	D-WM4036-ND	MOLEX	THT	39299063-MOLEX	
33	1	J5	Connettore ULTRAFIT 2 x 4 P.3.5	MOLEX 17: 172298-1108	D-WM11582-ND	MOLEX	THT	1722981108-MOLEX	
34	1	J8	Connettore Recptable 2X10 SMD P.2.54	9-338069-(9-338069-0 TE	D-A99427TR-ND	TYCO	SMD	TYCO-9-338069-0	
35	2	J9,J10	CONN.HEADER 2X5 DRITTO P2	98414-G0698414-G06-10LF	D-609-2580-ND	FCI	THT	FCI-98414-G-06-10	PASSO
		12,7							2MM
36	1	J11	TTerminali e capicorda 2.54MM CGRIDIII HDR 8P V	90130-120 90130-1208	M: 538-90130-1208	MOLEX	THT	901301208-MOLEX	P2.54
	_		DR SHRD AU-E						
37	1	J12	Header boxed IDC dritto 2 X 3 P.2.54	6,12E+10 61200621621	F-2356251	WURTH	THT	61200621621-WE	
38	1	J13	Header dritto 2 PIN P.2.54	2 PIN P.2.5 952-2262	D-952-2262-ND	HARWIN	THT	2SIP100-NEUTRO	
39	1	J15	Header diritto, posizioni 4x2, passo 2.54	HEADER 4x2				2X4-SIP100	
40	2	L1,L4	Filtro Modo Comune x CAN BUS	DLW32SH1DLW32SH101XF2L	D-490-DLW32SH101XF2LTR-N	[ MURATA	DLW32SH101XF2L	DLW32S MURATA	115mA
41	18	L7,L8,L9,L10,L11,L12,L13,	Ferrite Bead	BLM18BD1BLM18BD102SN1D	R-724-1318	MURATA	SMD0603	SMD0603	200mA,
		L14,L20,L21,L22,L23,L25,L							1K@100M
		26,L27,L28,L29,L30							Hz
42	4	L15,L16,L24,L31	Common mode coil	DLW5BTM DLW5BTM102SQ2L	R-2470375	MURATA	5B	DLW5BT-MURATA	
43	1	L17	Induttore schermato	22uH 7447773220	R-185-7482	WURTH		WE-PD-7345-WURTI	1.8A SAT
44	2	L18,L19	Induttore 8.2uH	8.2uH SRR4528A-8R2Y	R-1765964	BOURNS	5X5MM SMD	SRR4528A-BOURNS	
	-	==-,-=-		5	1, 33301	2000		2	70moHm,
									ferrite
45	3	Q1,Q3,Q11	MOSFET CANALE N	ZXMS6004 ZXMS6004FFTA	M-522-ZXMS6004FFTA	Diodes Incorpor	r SOT23	SOT23-123	60V VDS,
75	3	α1,α3,α11	INIOSI ET OTHER IN	ZANISOUGH I IA	W 322 ZAWISOOOTI TA	Diodes incorpor	133123	33123 123	1.3A
									1.5/

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46	4	Q2,Q4,Q9,Q10	MOSFET CANALE N	2N7002L	2N7002L	M: 512-2N7002L	ON	SOT23	SOT23-123	60V VDS,
										115mA,
										Vth=1.8
47	2	Q5,Q7	MOSFET CANALE N	PSMN3R0	- PSMN3R0-60PS	RS: 798-2946	NXP	TO220	TO220-123-IS	MONTARE
										DISSIPATO
										RE AAVID
										577002b0
										0000
48	2	Q6,Q8	MOSFET CANALE N	PSMN3R0	- PSMN3R0-60PS	RS: 798-2946	NXP	TO220	TO220H-NUM+R	
										20x20mm
										su DRAIN
49	1	RAD1	Dissipatore Alluminio x D20	AAVID 529	9 529801B02500G	F-1363699	AAVID	THT	529801B02500G	-AAVID
50	2	RAD2,RAD3	Dissipatore Alluminio x Q8/Q9	AAVID 57	7 577002B00000	F-2822614	AAVID	THT	577002B00000G	-AAVID
51	1	RL1	Rele' SPST 24V, 30A	T9AS1D12	-T9AS1D12-24	F-2103595	TE	THT	T9AS1-TE	
52	19	R1,R10,R14,R81,R82,R83, R86,R87,R101,R105,R108,		1K	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
		R111,R124,R146,R154,R1 68,R169,R170,R171								
53	21	R2,R3,R5,R6,R9,R11,R13,	Resistore thick film 1/4W 1% 0603	330R	VARI	MULTICOMP	VARI	SMD1206	SMD1206	
		R15,R17,R19,R21,R39,R4								
		1,R42,R44,R45,R50,R51,R								
		53,R63,R64								
54	35	R4,R7,R8,R12,R16,R18,R2	Resistore thick film 1/8W 1% 0603	680R	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
		0,R22,R47,R48,R49,R54,R								
		67,R68,R72,R74,R80,R95,								
		R96,R103,R107,R109,R11								
		3,R114,R117,R118,R120,R								
		123,R130,R132,R145,R15								
		3,R162,R163,R166								
55	11	R23,R24,R77,R84,R85,R9	Resistore thick film 1/8W 1% 0603	10K	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
		7,R125,R160,R161,R165,R	_	2011	7	WOZWOOW!	77	311120003	5.11.2 0 0 0 0	
		172								
56	1	R25	Resistore thick film 1/8W 1% 0603	33R	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
57	1	R26	Resistore thick film 1/8W 1% 0603	120R	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
58	3	R27,R28,R31	Resistore thick film 1/8W 1% 0603	470R	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
59	2	R29,R30	Resistore thick film 1/8W 1% 0603	60R	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
60	5	R40,R43,R46,R52,R126	Resistore thick film 1/8W 1% 0603	330R	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
61	6	R55,R56,R57,R58,R59,R6	Resistore thick film 1/8W 1% 0603	2K	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
		0	,							
62	9	R61,R62,R69,R70,R100,R	Resistore thick film 1/8W 1% 0603	3K3	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
		104,R112,R119,R164								

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63	17	R65,R66,R71,R73,R75,R7	Resistore thick film 1/2W 1% 1206	2K2	VARI	MULTICOMP	VARI	SMD1206	SMD1206	1/4W 1%
		6,R78,R79,R102,R106,R11								
		5,R116,R121,R122,R128,R								
		129,R167								
64	2	R88,R98	Resistore thick film 1/8W 1% 0603	5K7	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
65	6	·	Resistore thick film 1/8W 1% 0603	100K	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
		0,R155	,							
66	1	R90	Resistore thick film 1/8W 1% 0603	2K2	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
67	1	R91	Resistore thick film 1/8W 1% 0603	68K	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
68	1	R92	Resistore thick film 1/8W 1% 0603	30K9	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
69	1	R93	Resistore thick film 1/8W 1% 0603	140K	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
70	1	R94	Resistore thick film 1/8W 1% 0603	10K2	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
71	1	R99	Resistore thick film 1/8W 1% 0603	95K3	VARI	MULTICOMP	VARI	SMD0603	SMD0603	
72	1	R110	Resistore thick film 1/4W 1% 0805	OR	VARI	MULTICOMP	VARI	SMD0805	SMD0805	
		R127	•	470R	VARI	MULTICOMP	VARI	SMD0805	SMD0805-MET	1 (0) (1 10/
73	1		Resistore thick film 1/8W 1% 0805							1/8W 1%
74	1	R133	Resistenza di potenza Bourns	2R-25W	PWR163S-25-2R00J	RS: 819-9962	BOURNS	DPAK	PWR163-BOURNS+	
										SU 2x2 cm
75	2	D424 D444	Desistant third files 4 /004/40/ 0002	121/	MADI	NALII TICONAD	VADI	CNADOCOS	CNADOCOS	
75	2	R134,R141	Resistore thick film 1/8W 1% 0603	12K	VARI	MULTICOMP	VARI	SMD0603	SMD0603	4 /4) 4 / 4 0 /
76	1	R135	Resistore thick film 1/2W 1% 1206	330R	VARI	MULTICOMP	VARI	SMD1206	SMD1206	1/4W 1%
77	5	R136,R149,R151,R158,R1	Resistore thick film 1/8W 1% 0805	3K3	VARI	MULTICOMP	VARI	SMD0805	SMD0805-MET	1/8W 1%
		59								
78	1	R137	Resistore thick film 1/8W 1% 0805	6K8	VARI	MULTICOMP	VARI	SMD0805	SMD0805-MET	1/8W 1%
79	2	R138,R143	Resistore thick film 1/8W 1% 0805	4K7	VARI	MULTICOMP	VARI	SMD0805	SMD0805-MET	1/8W 1%
80	2	R139,R142	Resistore thick film 1/2W 1% 1206	680R	VARI	MULTICOMP	VARI	SMD1206	SMD1206	1/4W 1%
81	1	R140	Resistenza di potenza Bourns	2R-25W	PWR163S-25-2R00J	RS: 819-9962	BOURNS	DPAK	PWR163-BOURNS+	
										SU 2x2
										cmm
82	2	R148,R157	Resistore thick film 1/8W 1% 0805	10K	VARI	MULTICOMP	VARI	SMD0805	SMD0805-MET	1/8W 1%
83	1	R152	Resistore thick film 1/8W 1% 0805	18K	VARI	MULTICOMP	VARI	SMD0805	SMD0805-MET	1/8W 1%
84	1	R156	Resistore thick film 1/8W 1% 0805	150K	VARI	MULTICOMP	VARI	SMD0805	SMD0805-MET	1/8W 1%
85	11	TP1,TP2,TP3,TP4,TP5,TP6	Torretta x Test Point foro pcb 1mm	T POINT R	20-2137	F-8731128	VERO	THT	TESTPOINT_1MM	
		,TP7,TP8,TP9,TP10,TP11								
86	40	TVS1,TVS2,TVS3,TVS4,TVS	Esd monodirezionale	SMBJ30A	SMBJ30A-E3/52	F-9551042	VISHAY	SMB	SMB-12	30V
		5,TVS6,TVS18,TVS38,TVS3								Nominal
		9,TVS41,TVS43,TVS44,TVS								
		45,TVS46,TVS47,TVS48,T								
		VS49,TVS50,TVS51,TVS52								
		,TVS53,TVS54,TVS55,TVS5								
		6,TVS57,TVS58,TVS59,TVS								
		60,TVS61,TVS62,TVS63,T								
		VS64,TVS65,TVS66,TVS67								
		,TVS68,TVS69,TVS70,TVS7								
		1,TVS72								

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87	<b>Qtà</b> 28	TVS7,TVS8,TVS9,TVS10,T VS11,TVS12,TVS13,TVS14 ,TVS15,TVS16,TVS17,TVS1 9,TVS20,TVS21,TVS22,TVS 27,TVS28,TVS29,TVS30,T VS31,TVS32,TVS33,TVS34 ,TVS35,TVS36,TVS37,TVS4 0,TVS42	Esd monodirezionale	SMBJ5A SMBJ5.0A	PN Fornitore	VARI	SMB	SMB-12	5V Nominal
88	16	U1,U6,U8,U36,U39,U45,U 46,U48,U49,U56,U57,U61 ,U64,U65,U66,U67	Rele' stato solido 60Vdc 0.1A	CPC1017N CPC1017N	M-849-CPC1017N	CLARE	4-PIN SOP	CPC1017N-CLARE	
89	35	U2,U3,U4,U5,U7,U9,U10, U11,U15,U16,U17,U18,U 19,U20,U21,U22,U23,U24, U25,U26,U27,U28,U29,U 30,U31,U32,U33,U44,U47, U51,U52,U53,U54,U62,U		TCMT1103 TCMT1103	F-1328388	VISHAY	HALF PITCH MINI-F	SSOP4	
90	1	U12	SINGLE NAND	SN74LVC1(SN74LVC1G00DRLR	M-595-SN74LVC1G00DRLR	TI	SOT-5X3-5	SOT-5X3	1.8 to 5.5V
91	1	U13	CAN TRANSCEIVER	TJA1050T TJA1050T	M-771-TJA1050T/CM,118	NXP	SOIC-8	SO8	5V
92	4	U34,U35,U42,U43	SINGLE OR	M74VHC1(M74VHC1GT32DTT1G	M-863-M74VHC1GT32DTT10	ON	SOT-23-5L	SOT23-5L	2 to 5.5V
93	1	U37	DC/DC 5V 500mA	TSR 0.5-24 TSR 0.5-2450	R-817-9400	TRACO POWER	ТНТ	TSR-0.5-TRACO	MAX 36V INPUT
94	1	U38	CI Regolatore switching	TPS54540 TSP54540DDA	F-2347008	TI	HSOIC	HSOP8	
95	1	U40	3.3VDC LDO	NCP1117S NCP1117ST33T3G	M-863-NCP1117ST33T3G	ON	SOT223	SOT223-1234	1.07V, vimax = 20V, Vi min=3.5V
96	1	U41	Low noise LDO regulator	MIC5205YI MIC5205YBM5	D-576-1262-1-ND	MICROCHIP	SOT-23-5L	SOT23-5L	
97	1	U50	SINGLE OR	M74VHC1(MC74VHC1GT32P5T5GI			SOT-23-5L	SOT23-5L	2 to 5.5V
98	1	U55	32bit ARM 4F 1MB Flash, 256K Ram, 2xCAN-FD	SAME51J2 SAME51J20A-A		MICROCHIP	TQFP	QUAD.50M/64/WG2	
99	2	U58,U59	Amplificatore differenziale HS	LMP8640- LMP8640MKE-T/NOPB	RS-824-7083	TI	SOT23-6L	SOT23-6L	
100	1	U60	Circuito integrato	MC34161E MC34161DG	F-1652462	ON	SOIC-8	SO8	
101	8	VG1,VG2,VG3,VG4,VG5,V G6,VG8,VG9		MASSA-VIRT				MVIRT-25MILS-N	
102	1	XT1	Cristalli 32.768KHz, 12.5pF, ECX-16, +/-20 ppm, 1.6 x 1.0 x 0.5 mm, -40 +85 C, RoHS	32.768 kHz ECS327-12.5-16-TR3	M-520-ECS.32712.516TR3	ECS	1.6 x 1.0 x 0.5 mm	ECX-16	-