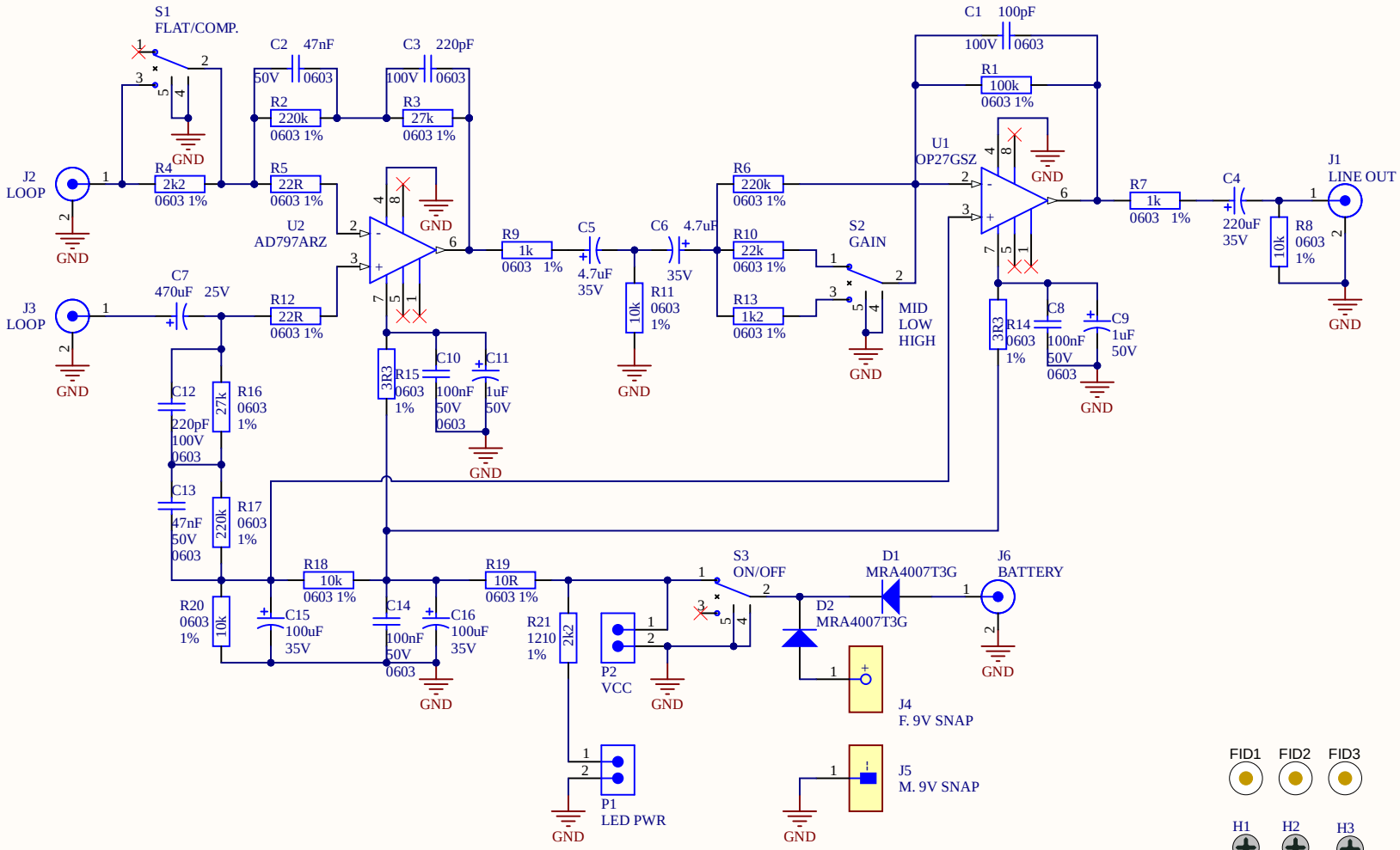

Project Title: VLF_LNAMP_001		POWERTEL di M. Pallotta Via Castello, 5 S.Eraclio di Foligno 06034 (PG)	
Sheet Title: Low Noise Amplifier			
Drawn by: Maurizio Pallotta	Size: A3		
Assembly Variant: [No Variations]	Revision: 1.00		
SVN Rev: 71 [Locally Modified]	Sheet: 1 of 1	Date: 21/10/2025	
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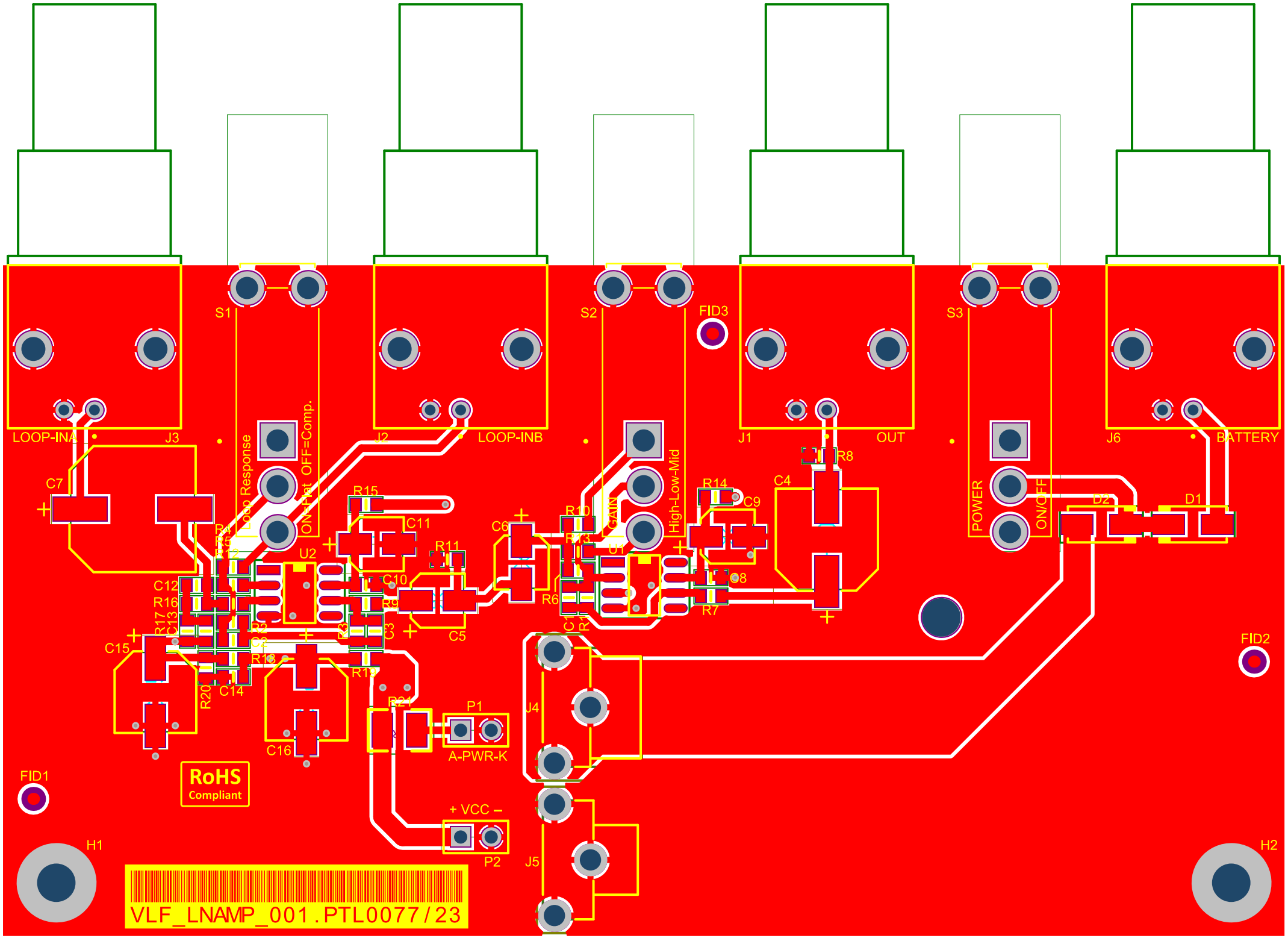
S1
S2
FID3
S3
LOOP-INA
J3
J2
LOOP-INB
J1
OUT
J6
BATTERY
Loop Response
ON=Flat OFF=Comp.
GAIN
High-Low-Mid
POWER
ON/OFF
C7
R15
C11
C6
R10
R14
C9
R8
C4
D2
D1
U2
R11
C10
R6
C8
R7
C12
R16
R17
C13
C15
C5
C14
R20
C16
R21
P1
A-PWR-K
J4
FID2
FID1
RoHS
Compliant
+ VCC –
P2
J5
H1
H2
VLF_LNAMP_001.PTL0077/23

Item #	Quantity	Designator	Manufacturer Part Number 1	Manufacturer 1	Description	Name	Footprint	Supplier 1	Supplier Part Number 1
1	1	C1	C0603C101K1RACTU	KEMET	Cap Ceramic 100pF 100V X7R 10% Pad SMD 0603 1	100pF	0603_C	Mouser	80-C0603C101K1R
2	2	C2, C13	CGA3E2X7R1H473K080AA	TDK	CGA Series 0603 47 nF 50 V ±10 % Tolerance X7	47nF	0603_C	Mouser	810-CGA3E2X7R1H473K
3	2	C3, C12	C0603C221K1RACTU	KEMET	Cap Ceramic 220pF 100V X7R 10% SMD 0603 125C	220pF	0603_C	DigiKey	399-C0603C221K1RACTUCT-ND
4	1	C4	865080553014	Wurth Elektronik	Alum. Electrolytic Cap 220µF 35V 8mmV-Chip WC	220uF	WCAP-ASLI_D8H10.5	Mouser	710-865080553014
5	2	C5, C6	865080540002	Wurth Elektronik	Smd Aluminium Electrolytic Capacitor, Wcap-As	4.7uF	WCAP-ASLI_D4H5.5	Mouser	710-865080540002
6	1	C7	865080457015	Wurth Elektronik	SMD Aluminium Electrolytic Capacitor, WCAP-AS	470uF	WCAP-ASLI_D10H10.5	Mouser	710-865080457015
7	3	C8, C10, C14	CGA3E2X7R1H104K080AA	TDK	TDK - CGA3E2X7R1H104K080AA. - CERAMIC CAPACIT	100nF	0603_C	DigiKey	445-5666-1-ND
8	2	C9, C11	865080640001	Wurth Elektronik	Smd Aluminium Electrolytic Capacitor, Wcap-As	1uF	WCAP-ASLI_D4H5.5	DigiKey	732-8446-1-ND
9	2	C15, C16	865080545012	Wurth Elektronik	Cap Aluminum Lytic 100uF 35V 20% (6.3 X 7.7mm	100uF	WCAP-ASLI_D6.3H7.7	Mouser	710-865080545012
10	2	D1, D2	MRA4007T3G	onsemi	Diode; Rectifier; Standard; Vr 1000V; If 1A;	MRA4007T3G	SMA_DIOM5226X250N	DigiKey	MRA4007T3GOSCT-ND
11	3	FID1, FID2, FID3				Fiducial10-20	Fiducial10-20		
12	2	H1, H2			SCREW_HOLE-3MA-Polarized	SCREW_HOLE	M3_SCREW_HOLE		
13	1	H3			SCREW_HOLE-3MA-Not Polarized	SCREW_HOLE	M3_SCREW_HOLE_NP		
14	1	J1	031-71042	Amphenol RF	RF Connector BNC Right Angle PCB Jack Through	LINE OUT	031-71042	DigiKey	ARF1704-ND
15	2	J2, J3	031-71042	Amphenol RF	RF Connector BNC Right Angle PCB Jack Through	LOOP	031-71042	DigiKey	ARF1704-ND
16	1	J4	594	Keystone	9V Battery Snaps & Contacts-FM	F. 9V SNAP	FP-594-MFG	DigiKey	36-594-ND
17	1	J5	593	Keystone	9V Battery Snaps & Contacts-M	M. 9V SNAP	FP-593-MFG	Newark	95F3282
18	1	J6	031-71042	Amphenol RF	RF Connector BNC Right Angle PCB Jack Through	BATTERY	031-71042	DigiKey	ARF1704-ND
19	1	P1	61300211121	Wurth Elektronik	WURTH ELEKTRONIK - 61300211121 - Pin Header,	LED PWR	WE_61300211121	DigiKey	732-5315-ND
20	1	P2	61300211121	Wurth Elektronik	WURTH ELEKTRONIK - 61300211121 - Pin Header,	VCC	WE_61300211121	DigiKey	732-5315-ND
21	1	R1	CRCW06031K00FKEA	Vishay	Resistor; Thick Film; 100 Kilohms; 0.1 W; 1%;	100k	0603_R	DigiKey	541-1.00KHCT-ND
22	3	R2, R6, R17	CRCW0603220KFKEAC	Vishay	Res Thick Film 0603 220K Ohm 1% 0.1W(1/10W) ±	220k	0603_R	DigiKey	541-4039-1-ND
23	2	R3, R16	CRCW060327K0FKEAC	Vishay	Res 27K Ohm 1% 1/10W 0603	27k	0603_R	Mouser	71-CRCW060327K0FKEAC
24	1	R4	CRCW06032K20FKEAC	Vishay	Res Thick Film 0603 2.2K Ohm 1% 1/10W ±100ppm	2k2	0603_R	Mouser	71-CRCW06032K20FKEAC
25	2	R5, R12	CRCW060322R0FKEAC	Vishay	Res Thick Film 0603 22 Ohm 1% 0.1W(1/10W) ±10	22R	0603_R	Mouser	71-CRCW060322R0FKEAC
26	2	R7, R9	CRCW06031K00FKEA	Vishay	VISHAY - CRCW06031K00FKEA - SMD Chip Resistor	1k	0603_R	DigiKey	541-1.00KHCT-ND
27	4	R8, R11, R18, R20	CRCW060310K0FKEA	Vishay	VISHAY - CRCW060310K0FKEA - SMD Chip Resistor	10k	0603_R	DigiKey	541-10.0KHCT-ND
28	1	R10	CRCW060322K0FKEA	Vishay	VISHAY - CRCW060322K0FKEA - Surface Mount Thi	22k	0603_R	DigiKey	541-22.0KHCT-ND
29	1	R13	CRCW06031K20FKEAC	Vishay	Res Thick Film 0603 1.2K Ohm 1% 1/10W ±100ppm	1k2	0603_R	Mouser	71-CRCW06031K20FKEAC
30	2	R14, R15	CRCW06033R30FKEA	Vishay	Res Thick Film 0603 3.3 Ohm 1% 1/10W ±100ppm/	3R3	0603_R	Farnell	2614315
31	1	R19	CRCW06031R00FNEA	Vishay	Res Thick Film 0603 10 Ohm 1% 1/10W ±100ppm/°	10R	0603_R	DigiKey	541-1.00HCT-ND
32	1	R21	CRCW12102K20FKEA	Vishay	Res Thick Film 1210 2.2K Ohm 1% 1/2W ±100ppm/	2k2	1210_R	Mouser	71-CRCW12102K20FKEA
33	1	S1	100SP3T2B4M7RE	E-Switch	Switch Toggle ON OFF ON SPDT Round Lever PC P	FLAT/COMP.	SW_100SP1T2B4M7QE	DigiKey	EG2382-ND
34	1	S2	100SP3T2B4M7RE	E-Switch	Switch Toggle ON OFF ON SPDT Round Lever PC P	GAIN	SW_100SP1T2B4M7QE	DigiKey	EG2382-ND
35	1	S3	100SP3T2B4M7RE	E-Switch	Switch Toggle ON OFF ON SPDT Round Lever PC P	ON/OFF	SW_100SP1T2B4M7QE	DigiKey	EG2382-ND
36	1	U1	OP27GSZ	Analog Devices	General Purpose Amplifier 1 Circuit 8-SOIC	OP27GSZ	SOIC127P600X175-8N	DigiKey	505-OP27GSZ-ND
37	1	U2	AD797ARZ-REEL7	Analog Devices	Op Amp Single Low Noise Amplifier ¡Ã18V 8-Pin	AD797ARZ	SOIC127P600X175-8N	DigiKey	505-AD797ARZ-REEL7CT-ND

REV STATUS OF SHEETS											
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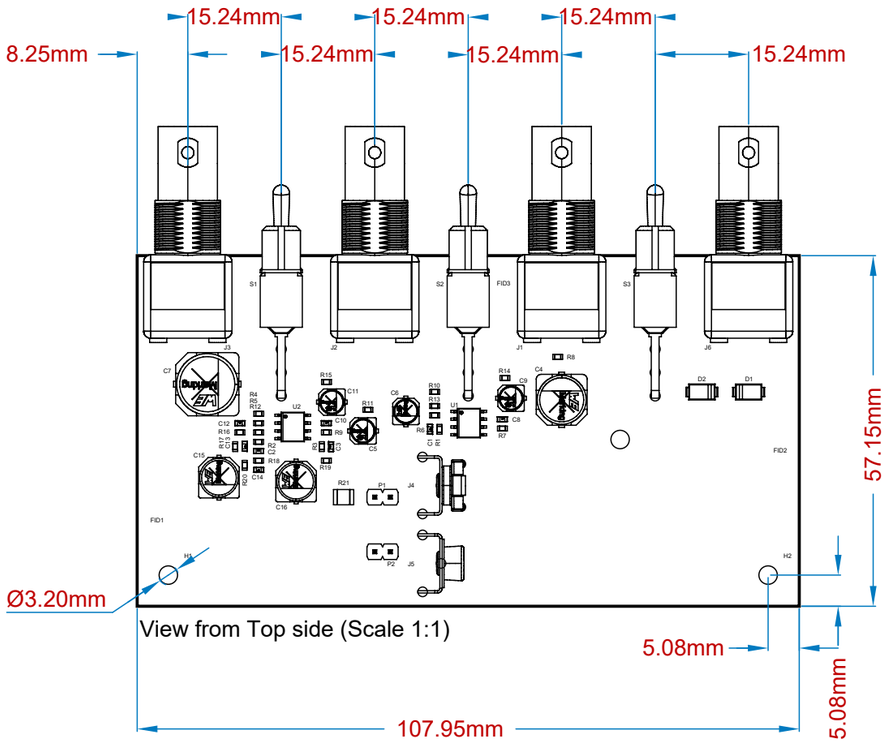

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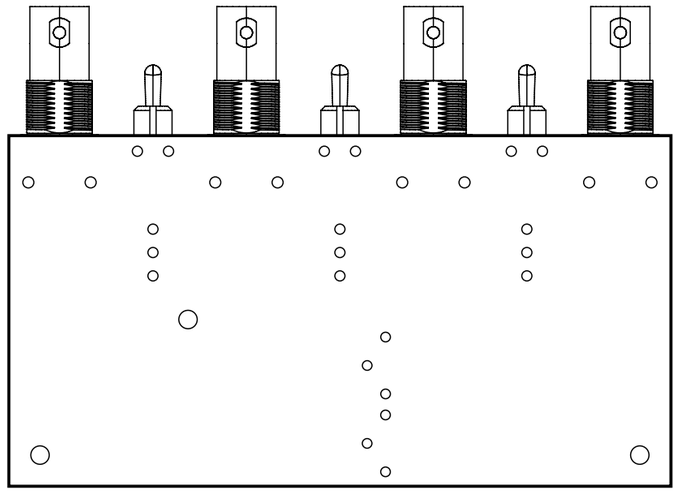

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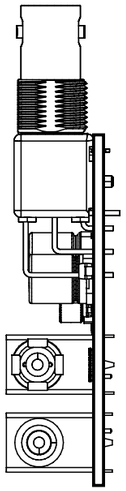

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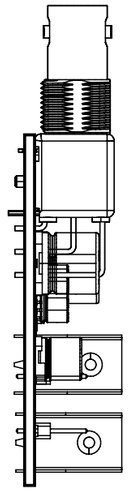
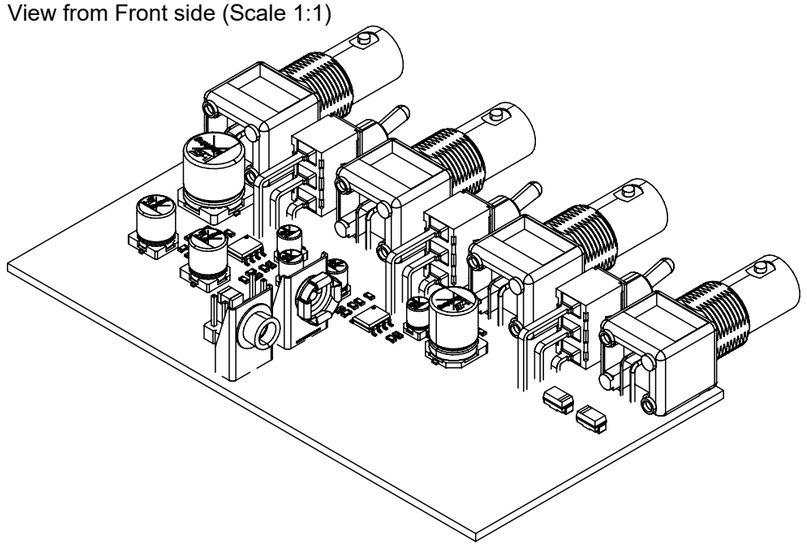


View from Left side (Scale 1:1)

View from Front side (Scale 1:1)



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CHECKER: =PCB_CHECKER	=PCB_CHECKE

Reference Documents

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ASSY DOC: =DOC_NO_FAB_DWG

SCH DOC: =DOC_NO_SCH_DWG

PCB DOC: =PCB_DWG_NO

NEXT ASSY | USED ON

APPLICATION

THIRD ANGLE PROJECTION

PowerTel
Via Castello, 5
S.Eraclio di Foligno
06034 (PG)
www.powertel-it.com

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DESIGN ITEM REVISION: .ItemRevision

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REV STATUS OF SHEETS											
REV											
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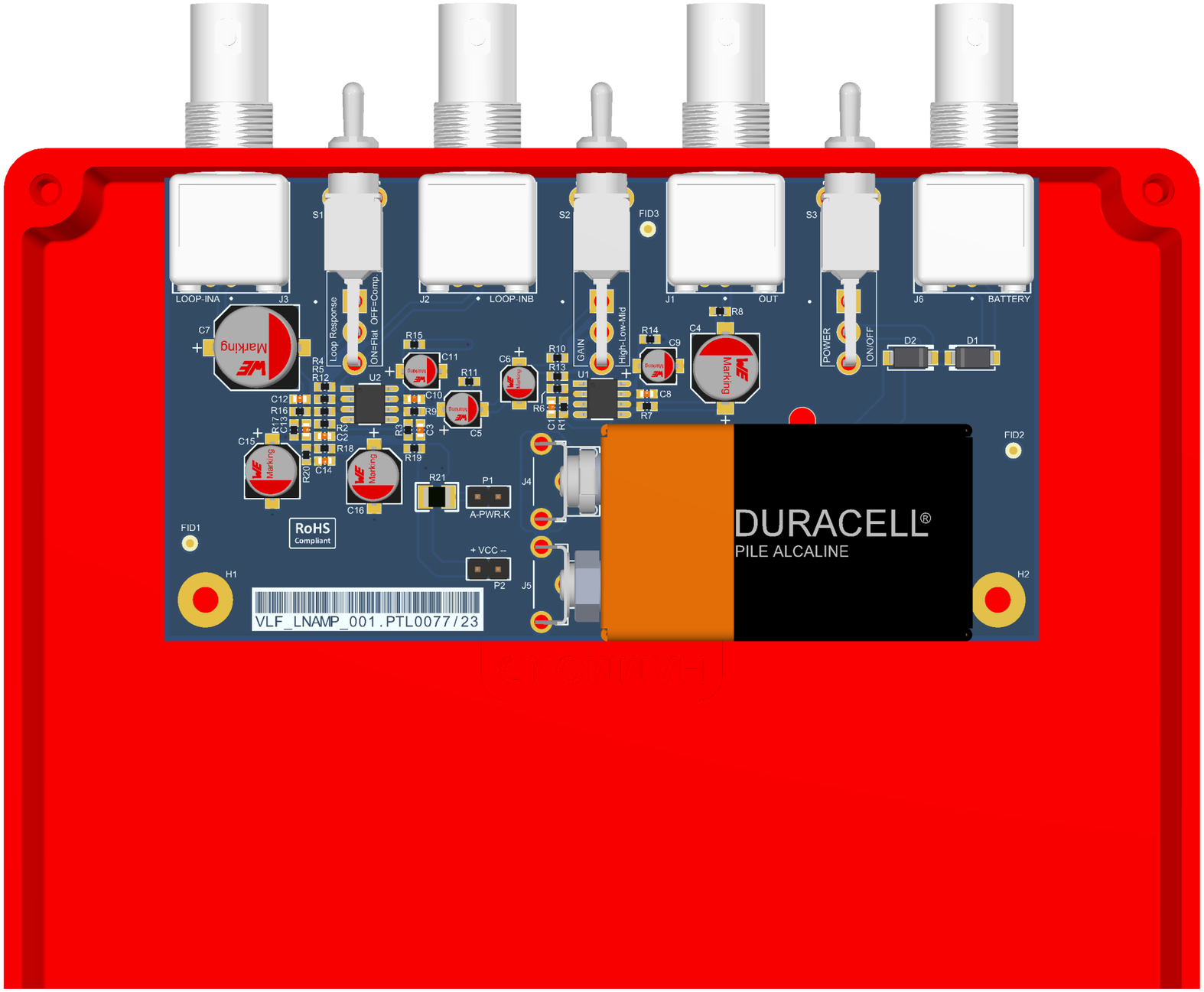
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

Realistic View



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Reference Documents

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SCH DOC:	=DOC_NO_SCH_DWG
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THIRD ANGLE PROJECTION

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DESIGN ITEM: .Item | DESIGN ITEM REVISION: .ItemRevision

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