



# GPSRXNV-00, GPSRXNV-01 & GPSRXNV-02

TECHNICAL ANNEX  
VOLUME 2



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Member of CISQ Federation



CERTIFIED MANAGEMENT SYSTEM  
ISO 9001



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Manufactured by R.V.R. ELETTRONICA S.r.l. Italy

## Appendix A Piani di montaggio, schemi elettrici, liste componenti / Component layouts, schematics, bills of material

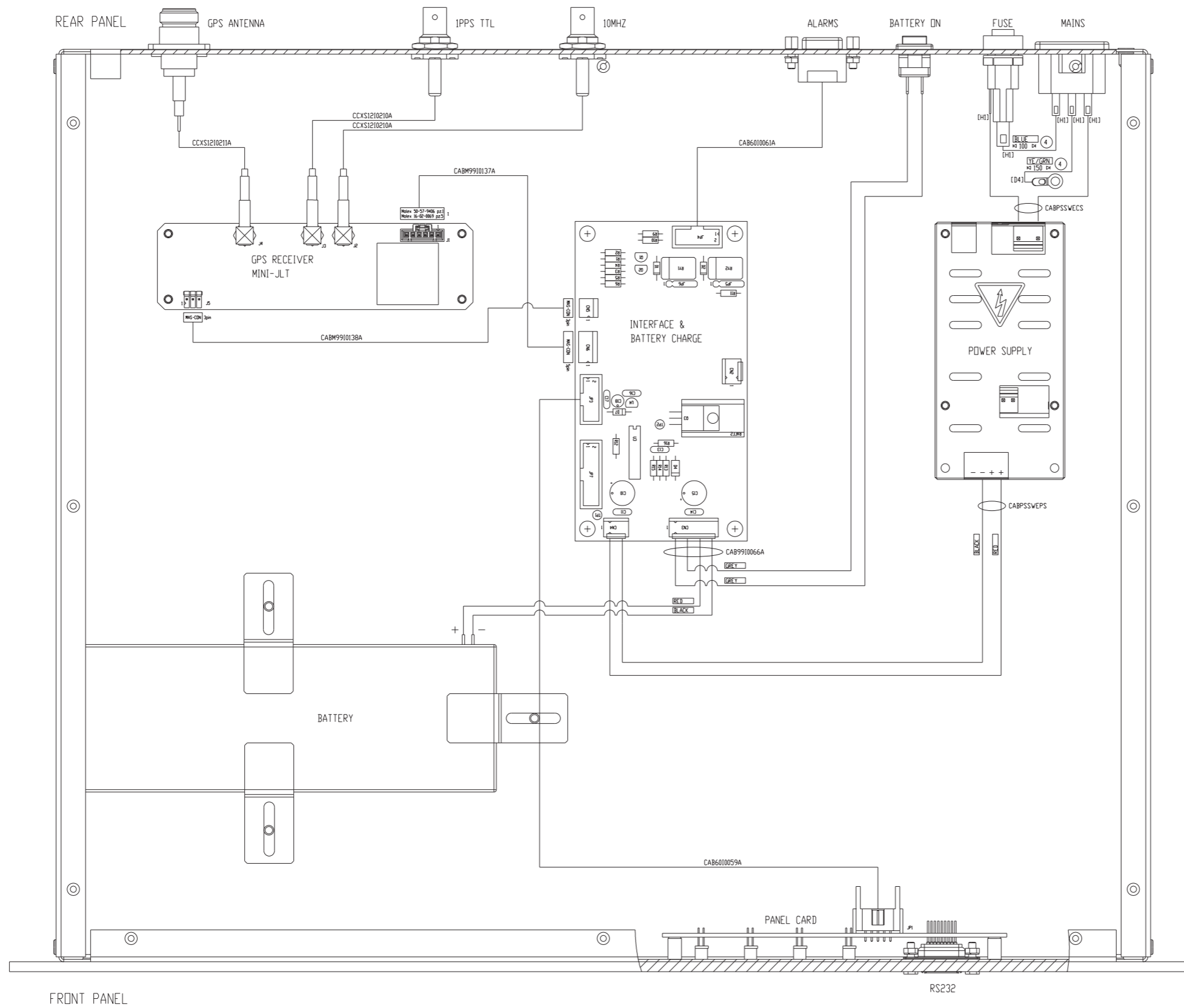
Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il GPSRXNV-00, GPSRXNV-01 & GPSRXNV-02 . L'appendice è composta dalle seguenti sezioni:

*This part of the manual contains the technical details about the different Cards of the GPSRXNV-00, GPSRXNV-01 & GPSRXNV-02 . This appendix is composed of the following sections:*

Description	RVR Code	Vers.	Page
<b>GPSRXNV-00, GPSRXNV-01 &amp; GPSRXNV-02</b>			
Wiring Diagram	/	2.1	1
Panel Card	SL041PC1001	1.0	3
Interface Card	SLIN0005R03V01	1.0	7
<b>/DSTB-GPSRX Option</b>			
Wiring Diagram with /DSTB-GPSRX	/	2.1	2
10MHz Distributor Card	SLSP0507R01V01	1.0	7
<b>GPSRXNV-01 &amp; GPSRXNV-02</b>			
GPSRXNV-01 & -02 Additional Cables	/	1.0	9
<b>GPSRXNV-02</b>			
GPSRXNV-02 Additional Cables	/	1.0	10

### Document History

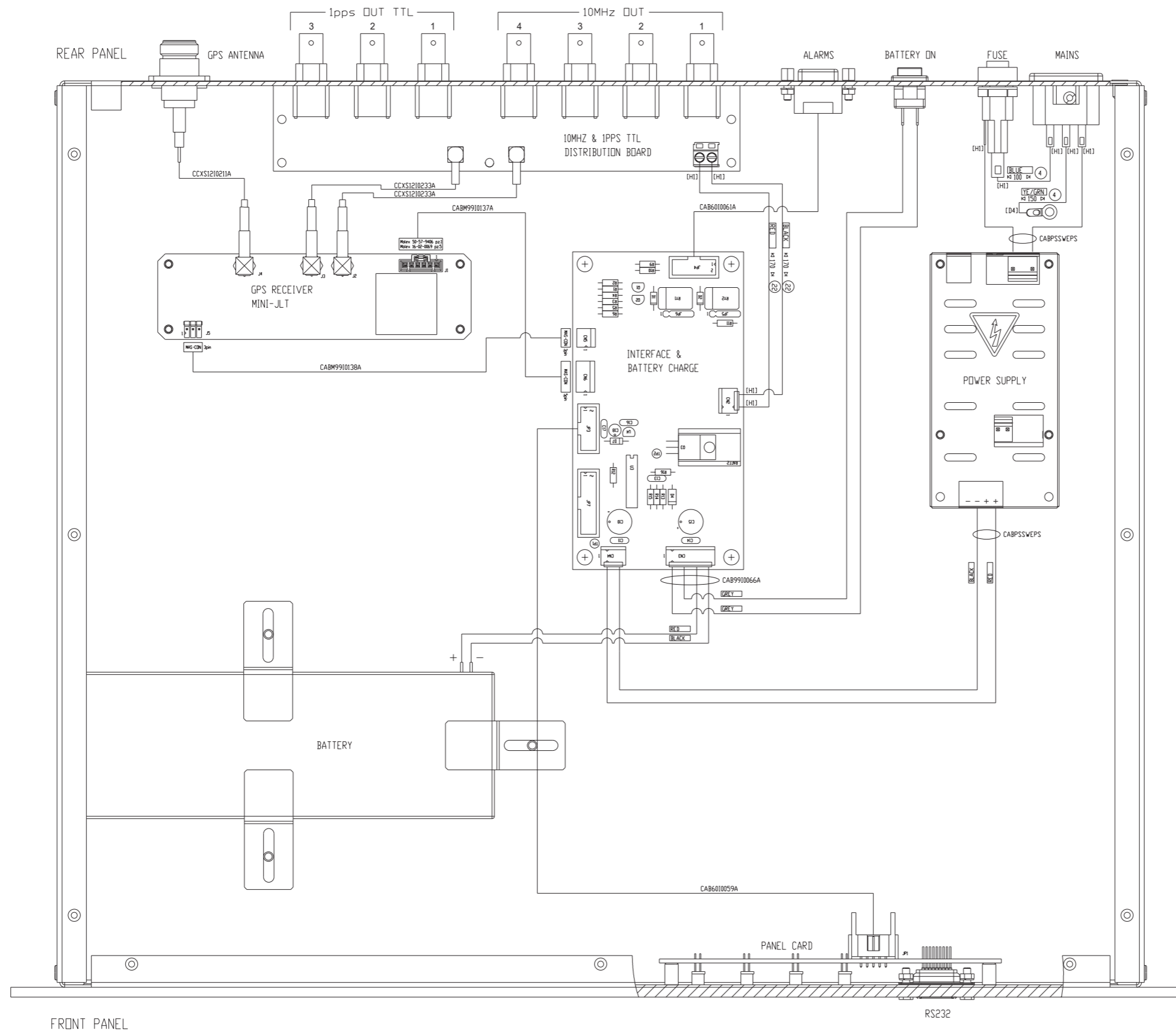
Date	Version	Reason	Code	Editor
10/04/2003	1.0	First Release	/	J.H. Berti
29/11/2022	2.0	Second Release	/	J.H. Berti



WIRES INFO	
-36-	WIRE IDENTIFICATION # (OPTIONAL)
WHITE	PLASTIC INSULATOR COLOUR
1.5	CONDUCTOR SECTION AREA IN mm <sup>2</sup>
≈1400±	LENGTH IN mm SEE EXAMPLES BELOW :

TERMINAL IDENTIFIER	TERMINAL TYPOLOGY
[D4]	
[H1]	

	PRODUCT NAME :	GPSRXNV	PART NAME :	WIRING DIAGRAM
	DESIGNER :	G. DE DONNO	DATE :	28-07-22
ARCHIVING : 'RVRUT' SERVER, 'RILASCIATI' FOLDER	PROJECT CODE :	041	REVISION :	2.1
			SCALE :	/
			SIZE :	A3
			PAGE :	1 DI 2
			DOCUMENT CODE :	<

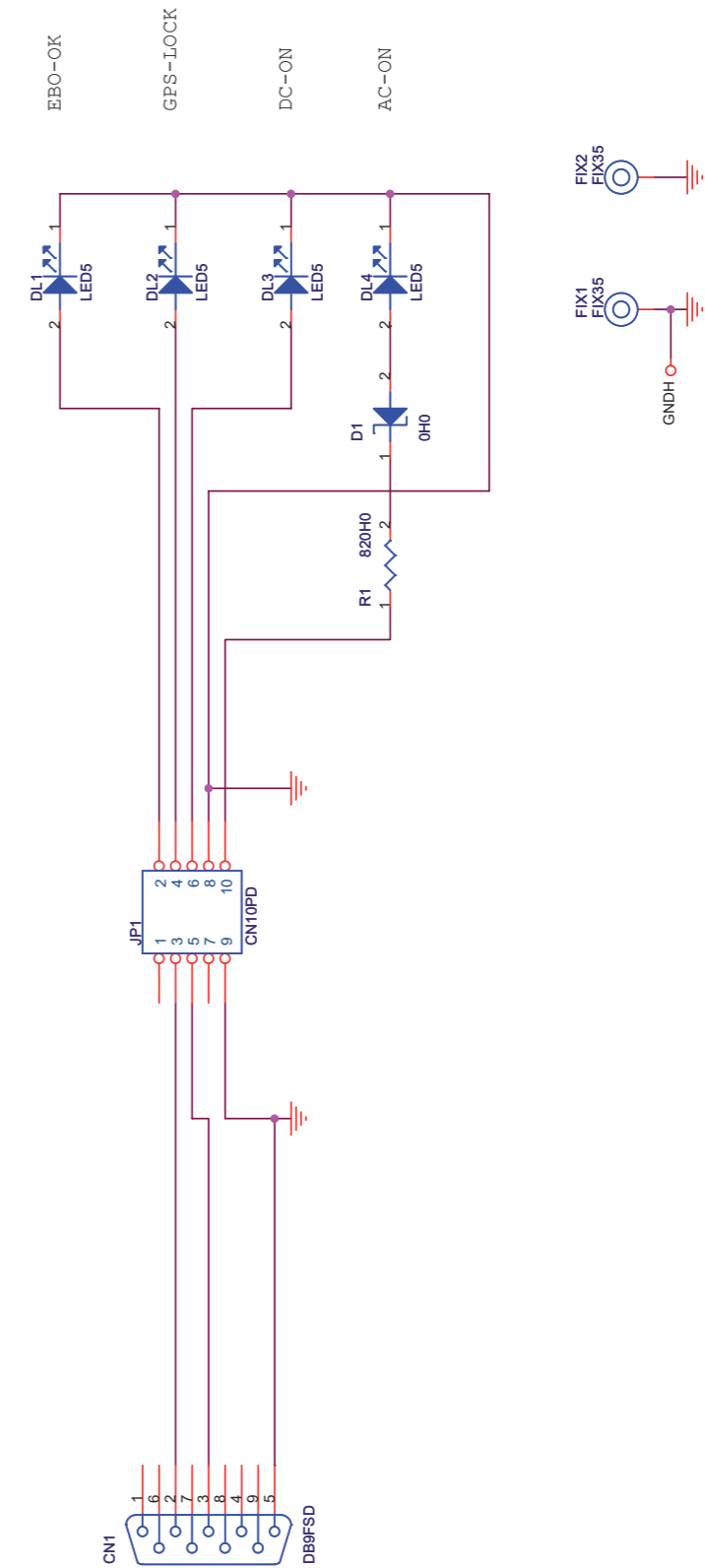
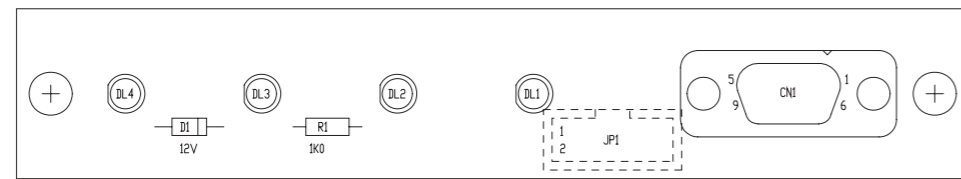


WIRES INFO	
-36-	WIRE IDENTIFICATION # (OPTIONAL)
WHITE	PLASTIC INSULATOR COLOUR
15	CONDUCTOR SECTION AREA IN mm <sup>2</sup>
±1400	LENGTH IN mm SEE EXAMPLES BELOW :

TERMINAL IDENTIFIER	TERMINAL TYPOLGY
[D4]	
[H1]	

	PRODUCT NAME : GPSRXNV	PART NAME : WIRING DIAGRAM WITH 10MHZ/IPPS DISTRIBUTOR
	DESIGNER : G. DE DONNO	DATE : 28-07-22   REVISION : 2.1   SCALE : /   SIZE : A3   PAGE : 2 DI 2
ARCHIVING : 'RVRUT' SERVER, 'RILASCIATI' FOLDER		PROJECT CODE : 041   DOCUMENT CODE : <>

SL041PC1001



	NOME PROGETTO: RICEVITORE GPS	NOME PARTE: PANEL CARD			
	AUTORE: TOMMASI	DATA: 01/08/2005	REVISIONE: 1.0	SCALA: 1:1	SIZE: A4
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"		CODICE PROGETTO: 041	CODICE DISEGNO: SL041PC1001		
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: PROGETTUALE		

Nome Progetto: RICEVITORE GPS	Pagina: 1 di 1
Autore: TOMMASI A.	Size: A4
Nome PC in Rete: \UTSRV\PROGETTO	Codice Progetto: RVR00041
Revisione: 1.0	Nome Parte: Scheda pannello
Autore: TOMMASI A.	Codice: SL041PC1001
Nome PC in Rete: \UTSRV\PROGETTO	Autore: TOMMASI A.
Revisione: 1.0	Autore: TOMMASI A.
Autore: TOMMASI A.	Autore: TOMMASI A.

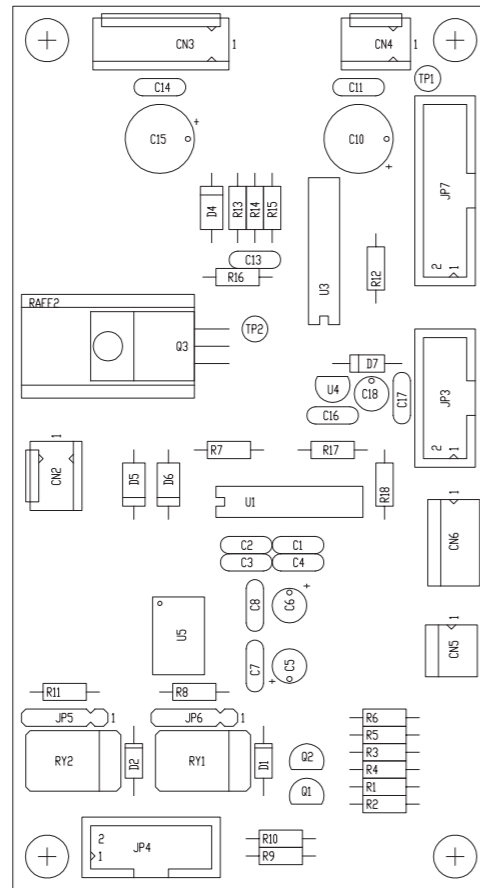
CS1  
CSPC0038R1

SL041PC1001

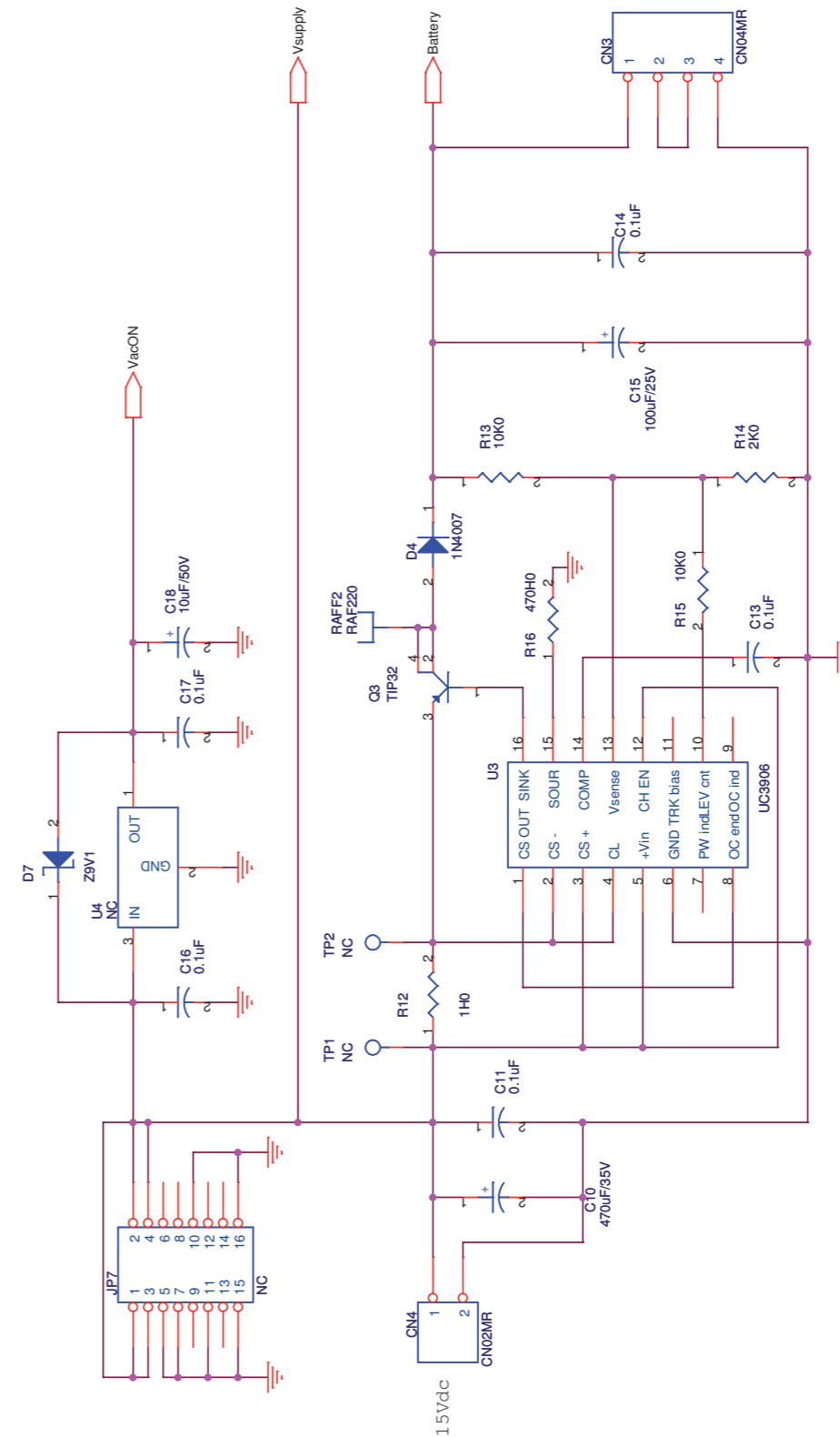
Scheda pannello Revised: 01-08-2005  
SL041PC1001 Revision: 1.0  
Ricevitore GPS  
RVR0041  
Tommasi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	DB9FSD	Connettore DB9 femm. cs
2	1	CS1	CSPC0038R1	Circuito stampato
3	4	DL1, DL2, DL3, DL4	LED-G5	LED dia. 5mm
4	1	D1	0H0	Res. 1/4W
5	2	FIX1, FIX2	FIX35	Foro fissaggio 3.5mm
6	1	JP1	CN10PD	Connettore 10 poli Flat cs
7	1	R1	820H0	Res. 1/4W 1%

SLIN0005R03V01

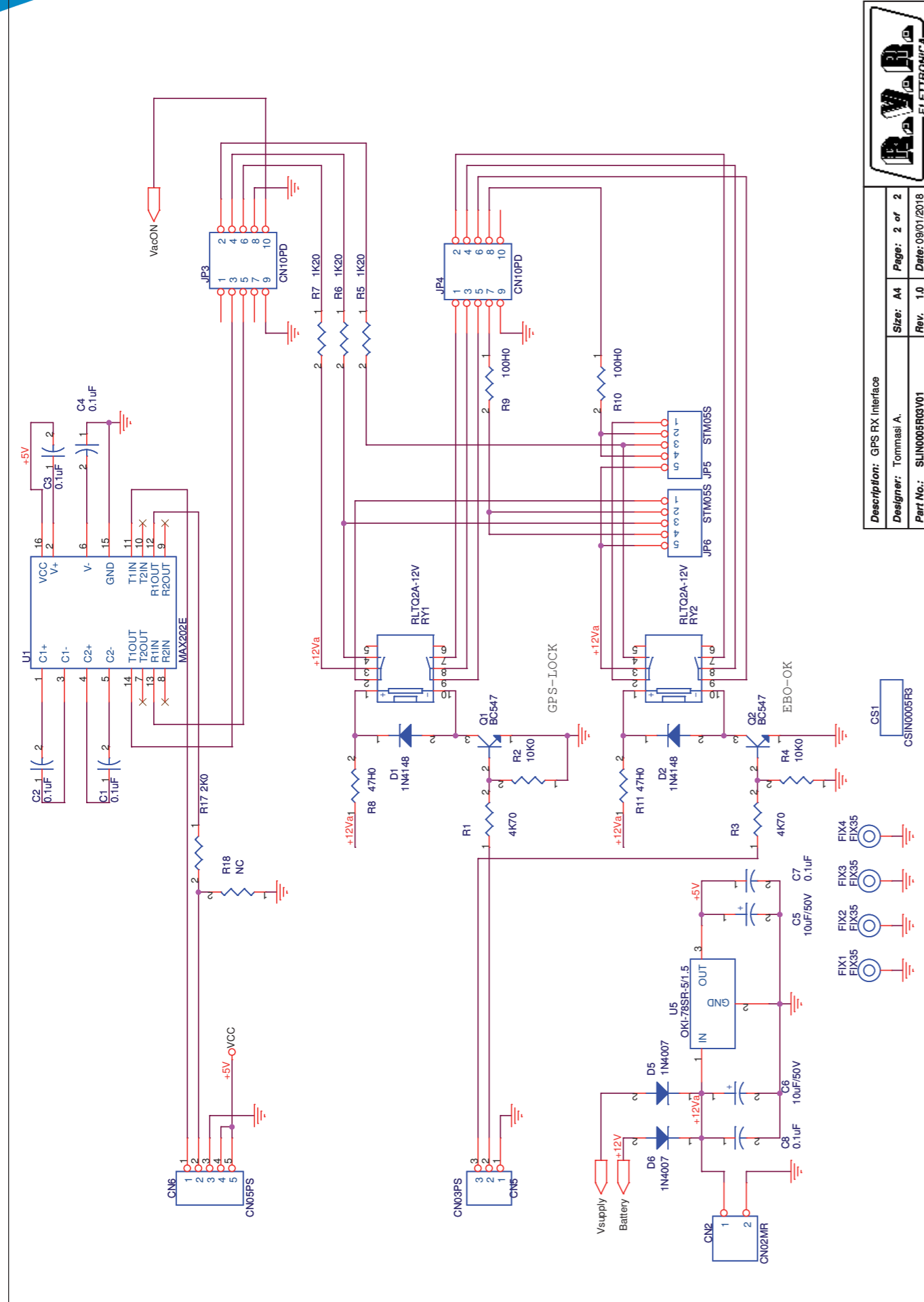


	PRODUCT NAME : GPSRXNV	PART NAME : INTERFACE CARD				
	DESIGNER : A. TOMMASI	DATE : 09/01/18	REVISION : 1.0	SCALE : 1:1	SIZE : A4	PAGE : 1 DI 1
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 041	DOCUMENT CODE : SLIN0005R03V01				



	Description: GPS RX Interface
	Designer: Tommasi A.
	Part No.: SLIN0005R03V01
Size: A4	Page: 1 of 2
Rev: 1.0	Date: 09/01/2018

SLIN0005R03V01



**Description:** GPS RX Interface  
**Designer:** Tommasi A.  
**Part No.:** SLIN0005R03V01

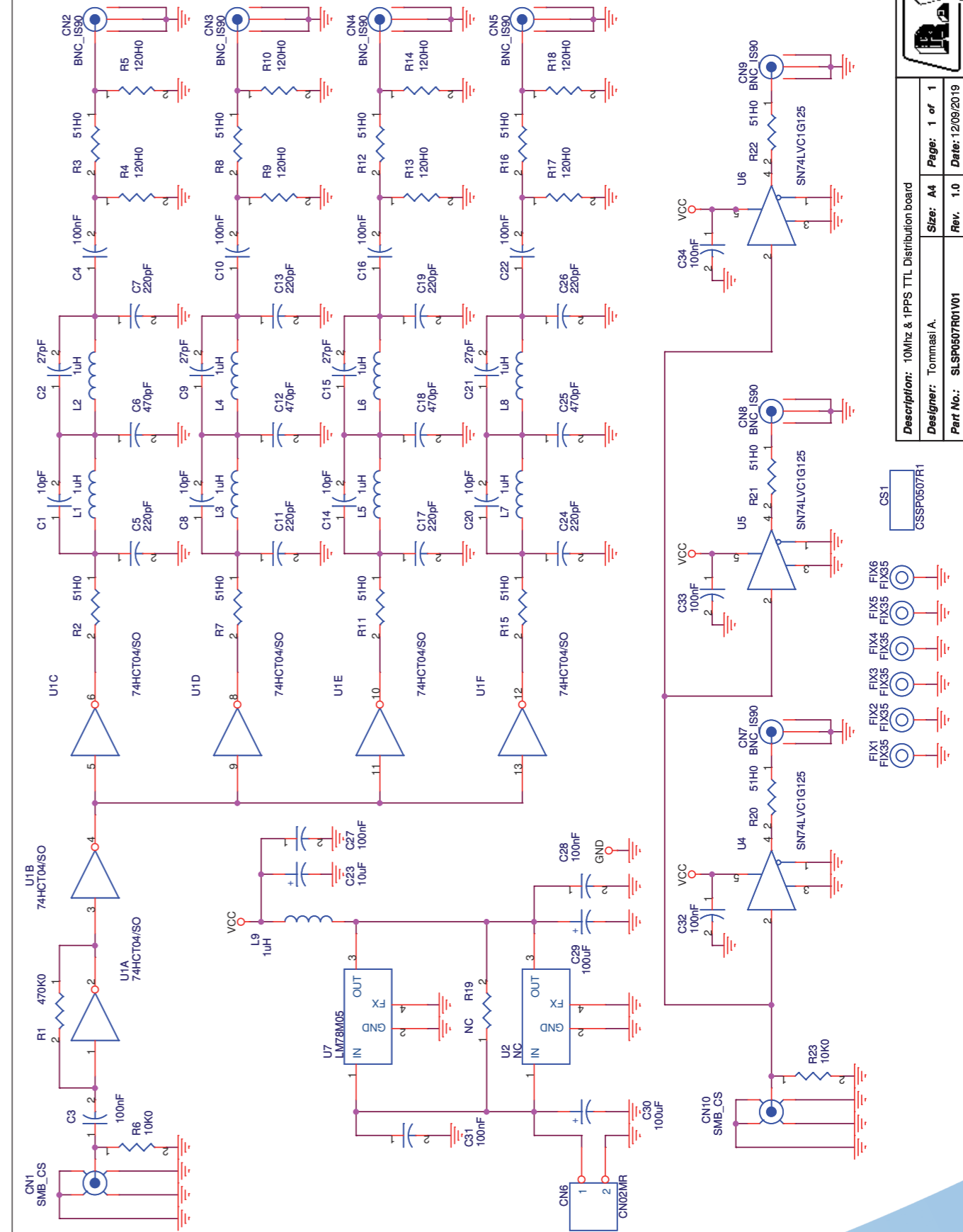
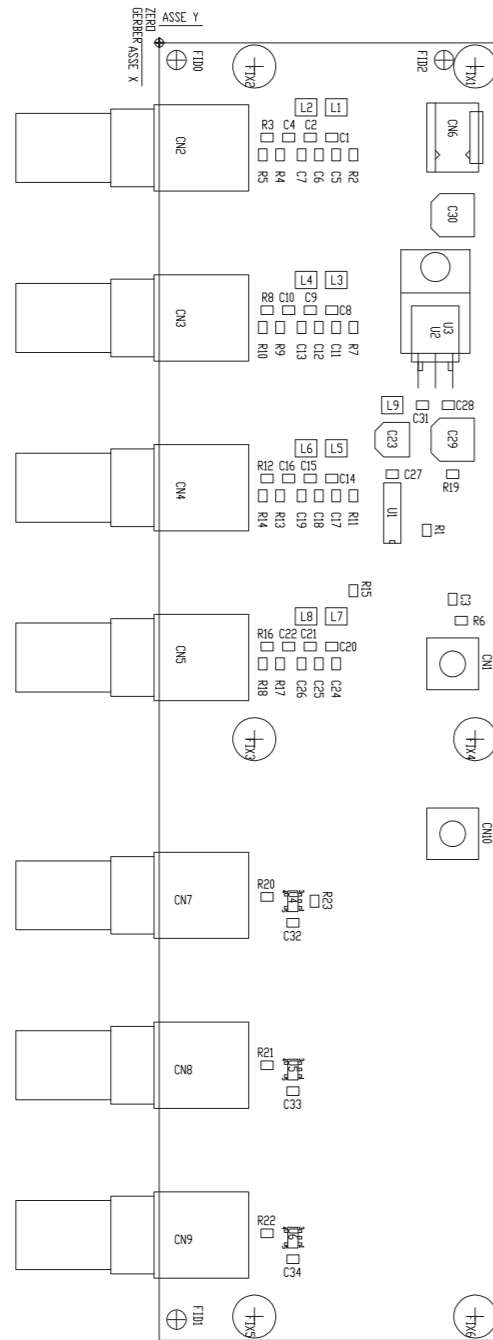
<b>Size:</b> A4	<b>Page:</b> 2 of 2
<b>Rev.:</b> 1.0	<b>Date:</b> 09/01/2018

GPS RX Interface Revised: Tuesday, January 09, 2018  
 SLIN0005R03V01 Revision: 1.0  
 Tommasi A.

Item	Quantity	Reference	Part	Description
1	2	CN2, CN4	CN02MR	Conn. Phoenix MSTB p. 5mm 2 pin
2	1	CN3	CN04MR	Conn. Phoenix MSTB p. 5mm 4 pin
3	1	CN5	CN03PS	Conn. 3 poli Mascon
4	1	CN6	CN05PS	Conn. 5 poli Mascon
5	1	CS1	CSIN0005R3	Circuito stampato
6	11	C1, C2, C3, C4, C7, C8, C11, C13, C14, C16, C17	0.1uF	Cond. ceramico p 5mm
7	3	C5, C6, C18	10uF/50V	Cond. Elettr. Dia 5 P2.54
8	1	C10	470uF/35V	Cond. Elettr. Dia 10 P5.08
9	1	C15	100uF/25V	Cond. Elettr. Dia 10 P5.08
10	2	D1, D2	1N4148	Diodo in vetro DO35
11	3	D4, D5, D6	1N4007	Diodo plastico DO41
12	1	D7	Z9V1	1/2W Zener Diode
13	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm
14	2	JP3, JP4	CN10PD	Conn. 10 poli Flat cs con alette
15	2	JP5, JP6	STM05S	Male strip 5 pin
16	1	JP7	NC	Conn.M.C.S.Dritto 16P alette.
17	2	Q1, Q2	BC547	Trans. NPN TO92
18	1	Q3	TIP32	Trans. PNP TO220
19	1	RAFF2	RAF220	Dissipatore TO220 20x15
20	2	RY1, RY2	RLTQ2A-12V	Rele' TQ2
21	2	R1, R3	4K70	Res. 1/4W 1%
22	4	R2, R4, R13, R15	10K0	Res. 1/4W 1%
23	3	R5, R6, R7	1K20	Res. 1/4W 1%
24	2	R8, R11	47H0	Res. 1/4W 1%
25	2	R9, R10	100H0	Res. 1/4W 1%
26	1	R12	1H0	Res. 1/4W 1%
27	2	R14, R17	2K0	Res. 1/4W 1%
28	1	R16	470H0	Res. 1/4W 1%
29	1	R18	NC	Res. 1/4W 1%
30	2	TP1, TP2	NC	Test point
31	1	U1	MAX202E	RS232 ESD Driver DIL16
32	1	U3	UC3906	Controllo carica batt. PB
33	1	U4	NC	Stabilizzatore TO92
34	1	U5	OKI-78SR-5/1.5	Switching SIP3 regulator



SLSP0507R01V01

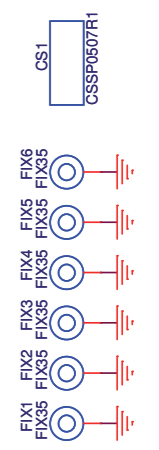


PRODUCT NAME : GPSRX-NV	PART NAME : 10MHZ 1PPS DISTRIBUTION BOARD
DESIGNER : A. TOMMASI	DATE : 08/10/19
REVISION : 1.0	SCALE : 1:1
SIZE : A4	PAGE : 1 DI 1

ARCHIVING : 'RVRUT' SERVER, 'RILASCIATI' FOLDER PROJECT CODE : 041 DOCUMENT CODE : SLSP0507R01V01



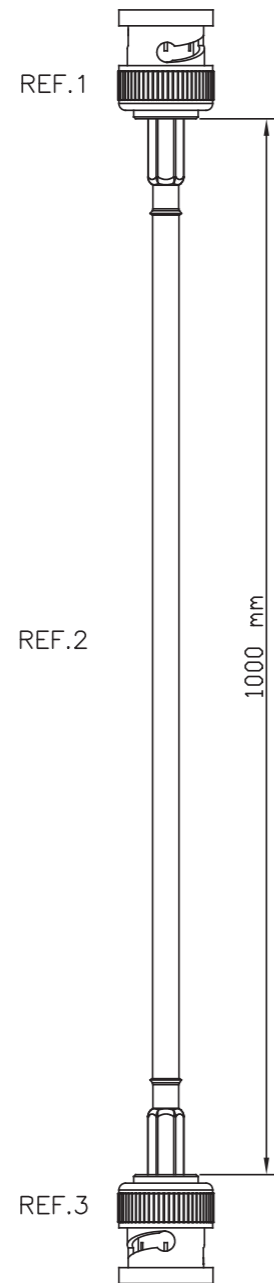
Description: 10Mhz & 1PPS TTL Distribution board	Size: A4	Page: 1 of 1
Designer: Tommasi A.	Rev: 1.0	Date: 12/09/2019
Part No.: SLSP0507R01V01		



SLSP0507R01V01

10MHz & 1PPS TTL Distribution board Revised: 12/09/2019  
 SLSP0507R01V01 Revision: 1.0  
 Tommasi A.

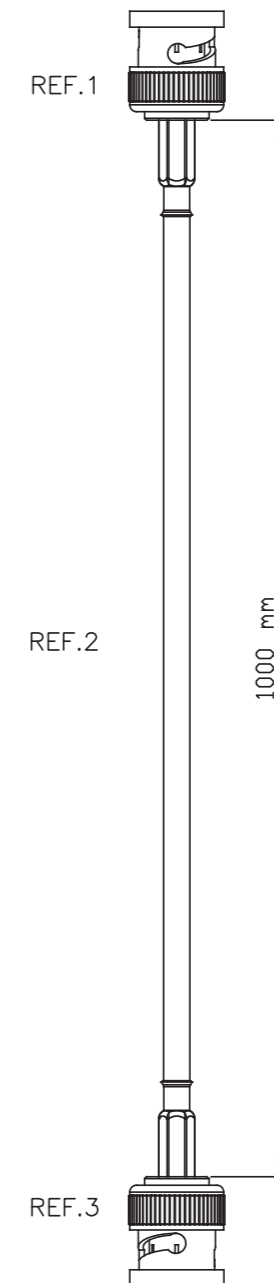
Item	Quantity	Reference	Part	Description
1	2	CN1, CN10	SMB_CS	SMB pcb conn.
2	7	CN2, CN3, CN4, CN5, CN7, CN8, CN9	BNC_IS90	Metal BNC conn. 90°
3	1	CN6	CN02MR	Phoenix conn. MSTB p. 5mm 2 pin
4	1	CS1	CSSP0507R1	Printed Circuit board
5	4	C1, C8, C14, C20	10pF	0805 SMD capacitor
6	4	C2, C9, C15, C21	27pF	0805 SMD capacitor
7	11	C3, C4, C10, C16, C22, C27, C28, C31, C32, C33, C34	100nF	0805 SMD capacitor
8	8	C5, C7, C11, C13, C17, C19, C24, C26	220pF	0805 SMD capacitor
9	4	C6, C12, C18, C25	470pF	0805 SMD capacitor
10	1	C23	10uF	SMD electr. cap. 5mm
11	2	C29, C30	100uF	SMD electr. cap. 6.3mm
12	6	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6	FIX35	3.5mm Fixing hole
13	9	L1, L2, L3, L4, L5, L6, L7, L8, L9	1uH	SMD inductor 3225 (1210)
14	1	R1	470K0	0805 SMD res.
15	11	R2, R3, R7, R8, R11, R12, R15, R16, R20, R21, R22	51H0	0805 SMD res.
16	8	R4, R5, R9, R10, R13, R14, R17, R18	120H0	0805 SMD res.
17	2	R6, R23	10K0	0805 SMD res.
18	1	R19	NC	0805 SMD res.
19	1	U1	74HCT04/SO	Hex Inv. SMD SO14
20	1	U2	NC	Voltage reg. TO220
21	1	U3	LM78M05	Voltage reg. SMD DPAK
22	3	U4, U5, U6	SN74LVC1G125	Level translator



REF.	CODE	DESCRIPTION	MANUFACTURER CODE	MU	Q.TY
REF.1	CNTBNCMLVF03CD	BNC M VOL X RG58/RG142 CRIMP	Adimpex "HP220022"; Deltron "BNC-05F-TGN"	PZ	1
REF.2	CAVRG58	CAVO COAX FLESSIB. RG58 50H	Huber+Suhner "RG_58_C-U"	MT	1
REF.3	CNTBNCMLVF03CD	BNC M VOL X RG58/RG142 CRIMP	Adimpex "HP220022"; Deltron "BNC-05F-TGN"	PZ	1



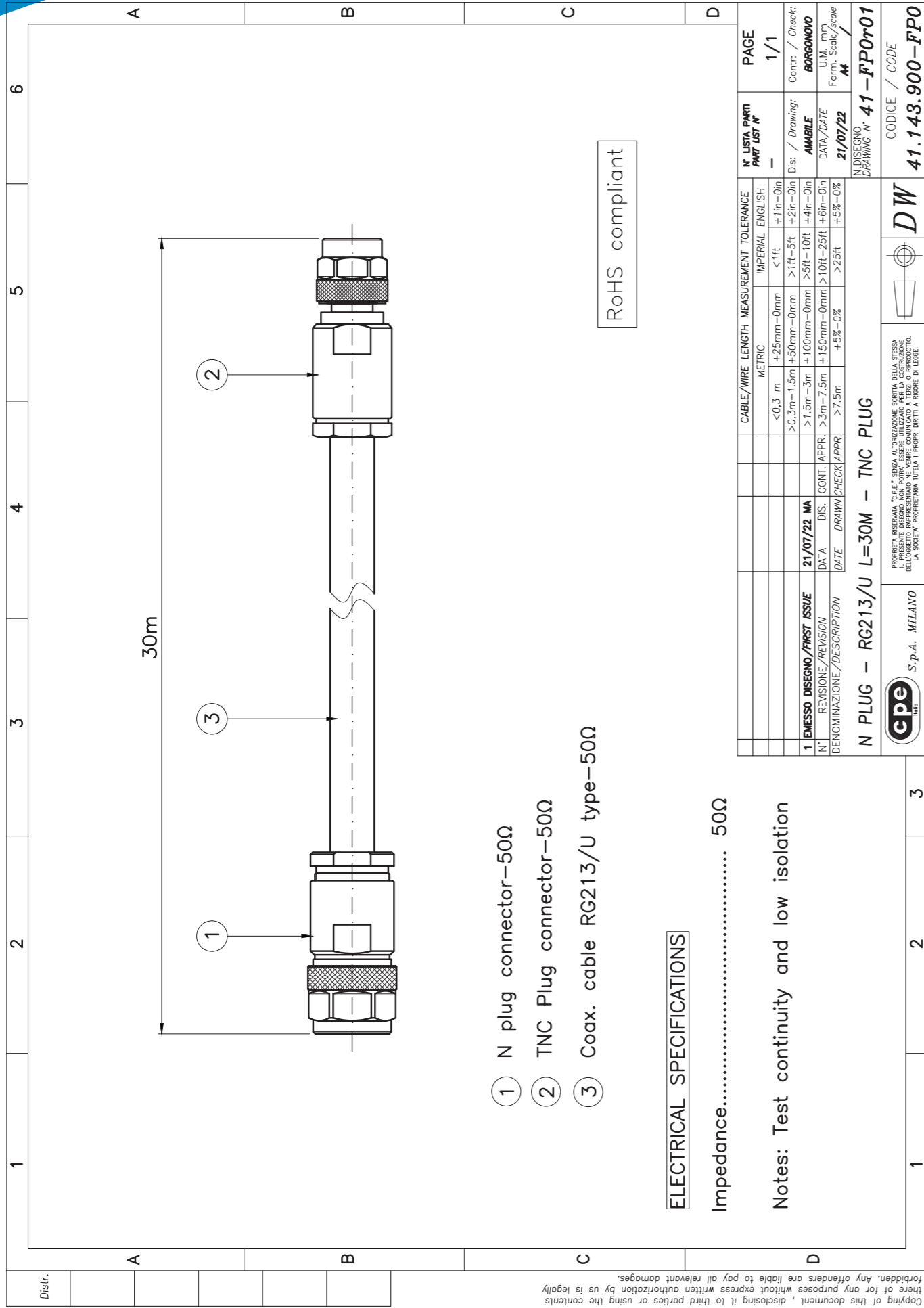
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DESIGNER :	G. DE DONNO	DATE :	01-08-2017
REVISION :	1.0	SCALE :	/
SIZE :	A4	PAGE :	1 OF 1



REF.	CODE	DESCRIPTION	MANUFACTURER CODE	MU	Q.TY
REF.1	CNTBNCMLVF03CD	BNC M VOL X RG58/RG142 CRIMP	Adimpex "HP220022"; Deltron "BNC-05F-TGN"	PZ	1
REF.2	CAVRG58	CAVO COAX FLESSIB. RG58 50H	Huber+Suhner "RG_58_C-U"	MT	1
REF.3	CNTBNCMLVF03CD	BNC M VOL X RG58/RG142 CRIMP	Adimpex "HP220022"; Deltron "BNC-05F-TGN"	PZ	1



WIRING CODE :	CCXM0110038A	DESCRIPTION :	CAVO RG58 BNCMVC-BNCMVC 1000MM
DESIGNER :	G. DE DONNO	DATE :	01-08-2017
REVISION :	1.0	SCALE :	/
SIZE :	A4	PAGE :	1 OF 1



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