



COMOSS ELECTRONIC CO., LTD.

DATA SHEET

IEEE-1394b 3-Port Repeater (1394REP-B3000)

COMOSS ELECTRONIC CO., LTD.

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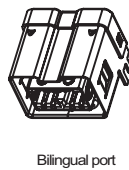
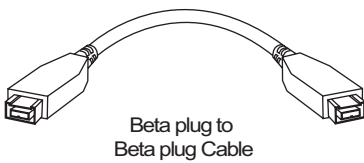
1394REP-B3000 Overview

Introduction:

1394REP-B3000 is a standard FireWire (IEEE1394b) repeater, extending your signal an additional 4.5 meters and adding one more FireWire (IEEE 1394b) port. It's easy to setup and there is no configuration necessary, like all IEEE1394 compliant hardware.

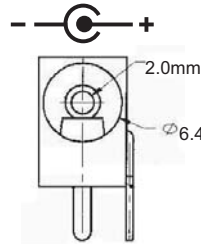
Specification:

- Fully Supports Provisions of IEEE P1394b Revision 1.33+ at 1-Gigabit Signaling Rates
- Fully Supports Provisions of IEEE 1394a.2000 and 1394.1995 Standard for High Performance Serial Bus
- Fully Interoperable With Firewire., i.LINK., and SB1394., Implementation of IEEE Std 1394
- Chip: PHY: TI. TSB81BA3D
- 1394 Bus Transfer Rate: 100 / 200 / 400 / 800 Mbps
- Device Interface: Provides Three Fully Backward Compatible, (1394a.2000 Fully Compliant) Bilingual P1394b Cable Ports at up to 800 Megabits per Second (Mbits/s)
- Connector:
 - * Bilingual Cable Ports x 3
 - * BNC control Port x 1



DC Power Jack :

- DC Power Connector: Walkman-type 2.0 mm DC Jack
- Power Input Range: DC 8V~33V, max. 1.5A



IEEE 1394 Power Class:

1394REP-B3000 was designed with 1394 power class 4 (PC0 ~ PC2 = 100). 1394REP-B3000 is a bus-powered device, it could be powered from DC Jack/ FireWire (IEEE 1394) bus and will repeat the power to FireWire (IEEE 1394) bus.

Power Class Descriptions

PC0 ~ PC2	DESCRIPTION
100	Node may be powered from the bus for the PHY only using up to 3W and may also provide power to the bus. The amount of bus power that it provides can be found in the configuration ROM.

Electric power consumption:

Under 1W

Hardware Requirements:

Desktop PC:

With either a built-in FireWire (IEEE-1394) controller or a FireWire (IEEE-1394) to PCI/PCIE Host Adapter equipped with an external FireWire (IEEE 1394) port.

Laptop PC:

With either a built-in FireWire (IEEE-1394) controller or a FireWire (IEEE-1394) to CardBus/ExpressCard PC Card equipped with an external FireWire (IEEE 1394) port.

Environmental Condition:

Storage Temperature : -20 degC to 75 degC

Operating Temperature : 0 degC to 60 degC

RoHS:

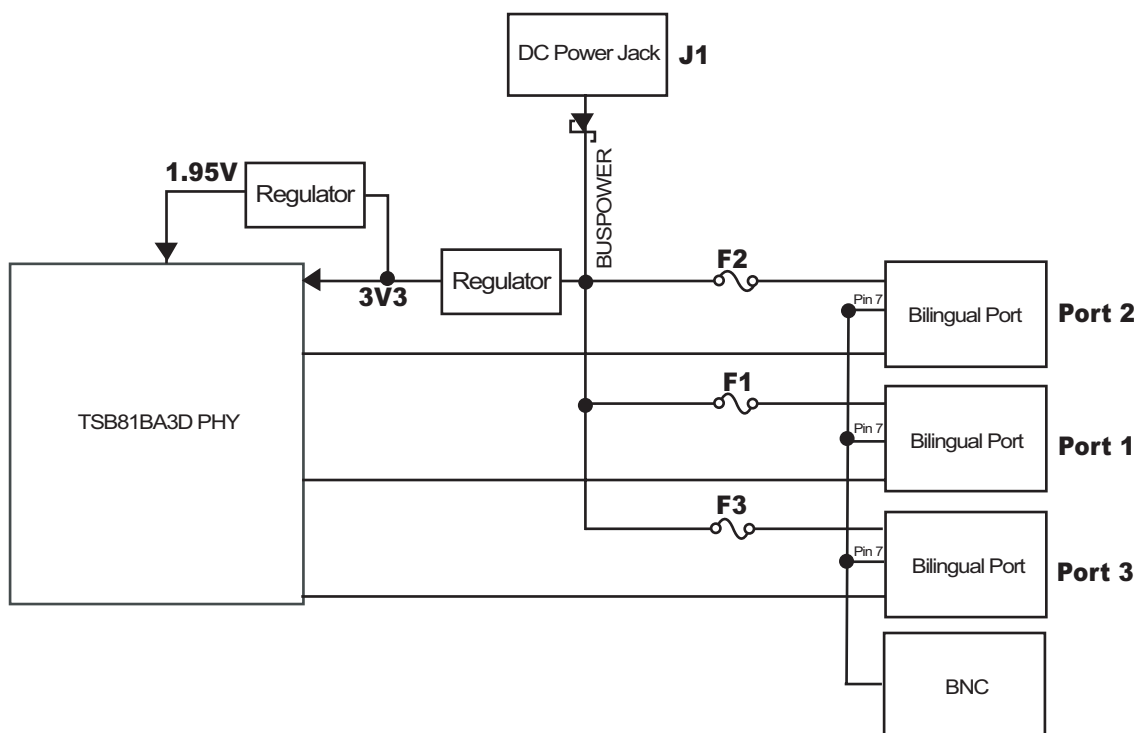
This repeater is satisfied with RoHS regulations. Material of solder is satisfied with following definition.

	Material of solder
Solder Paste	SN-3.0AG-0.5CU
Flow and hand soldering	SN-0.7CU+NI

Application:

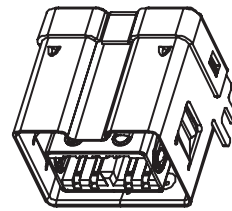
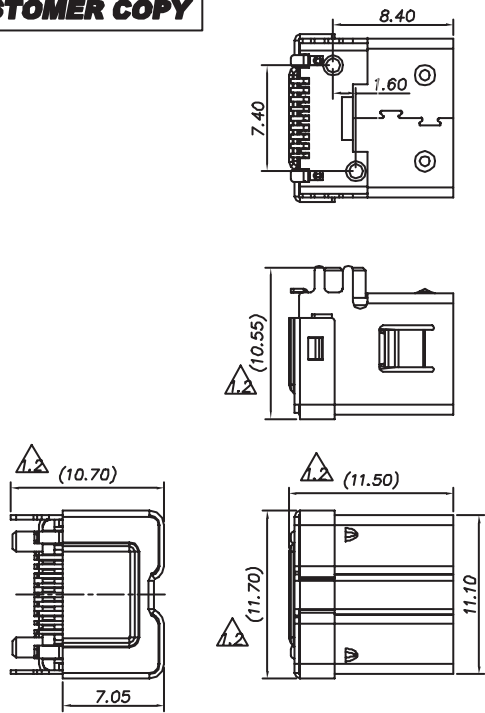
- Cable Extension
- One more port
- Compatibility: allows to convert 1394-1995 & 1394a to 1394b

Block Diagram:



Datasheet of Bilingual Connector

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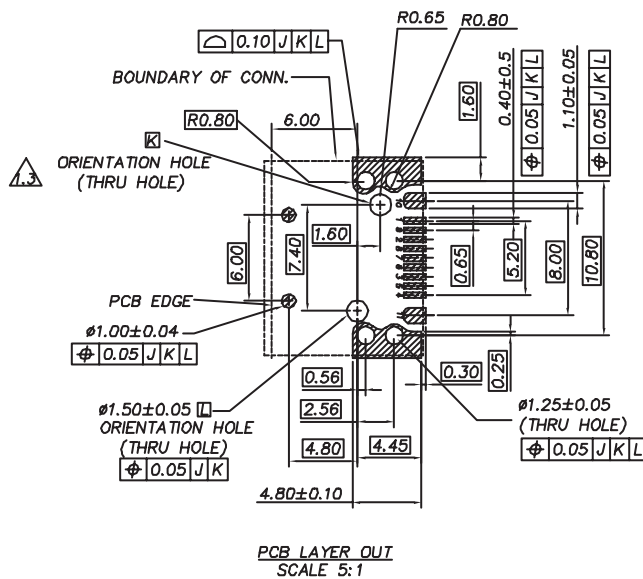
- NOTES:
- MATERIAL:
HOUSING: Thermoplastic, UL94V-0
CONTACT: Copper Alloy
SHELL: BRASS
 - PLATING:
Please refer to order information

REV.	DESCRIPTION	BY/DATE	CHECK/DATE	APPROVED/DATE
1.0	ORI	Paul/Apr,14,03*		
1.1	R-0185	Frank/Sep,05,03*		
1.2	R-0373	Jandy/May,20,04*		
1.3	R-0606	Wilson/May,13,05*		

General Tolerance	Angle Tolerance	Eng	Date	COMOSS® COMOSS ELECTRONIC CO., LTD. 4/F, No. 11, Chung Hwa Rd., Shilin Dist., Taipei, Taiwan R.O.C.
X ±0.15 X± ±0.10 X± ±0.05	3° ±1.0° 30° ±0.5° 300° ±0.2°	Paul	Apr/14,03*	
		Design Ben	Date 03/14/02*	
SHEET 1/3	CHK	Date	1394b Bilingual Socket Connector (Dip, Dual Lugs)	
Scale N/A	Units mm	APPR	Date	Dep. No. A00297
				Part No. HSR-BNXXX

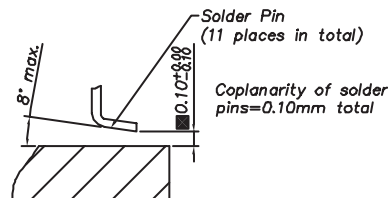
Drawing is subject to change without notice. Any updated information required, please contact with our sales dept.

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PCB LAYER OUT
SCALE 5:1

- Notes:
- Electrical Specifications:
Voltage: 30V
Current: 1.5 AMPS
Contact Resistance: 50mΩ max.
Shell Resistance: 50mΩ
Insulation Resistance: 100 MΩ min.
Dielectric Withstand: 100Vdc
 - Temperature Range:
Operating: -40°C ~ +85°C
Storage: -40°C ~ +105°C
 - The Clearance Between the contact and PCB no more than 0.10mm



View of Coplanarity

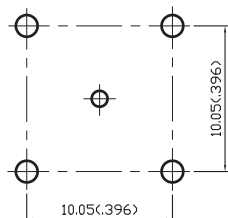
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		Design Ben	Date 03/14/02*	
SHEET 2/3	CHK	Date	1394b Bilingual Socket Connector (Dip, Dual Lugs)	
Scale N/A	Units mm	APPR	Date	Dep. No. A00297
				Part No. HSR-BNXXX

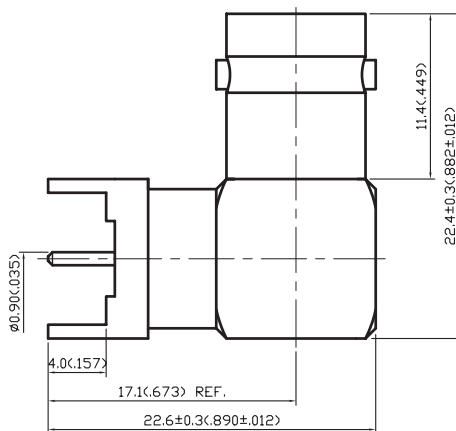
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Datasheet of BNC Connector

NO	DESCRIPTION	DATE
⚠	BACKGROUND FORMAT UPDATED	03.22.04



(4) $\phi 1.5(.059)$ MIN.
 (1) $\phi 1.1(.043)$ MIN.
 MOUNTING HOLE



NOTES: UNLESS OTHERWISE SPECIFIED

- BODIES: BRASS PER JIS-C3604
- CENTER CONTACT: BRASS PER JIS-C3604
- INSULATION: TEFLON PER ASTM D1457 AND ASTM D1710
- PART TO BE CLEAN AND FREE OF BURRS

NO	DESCRIPTION	MATERIAL	Q'TY	FINISH
7	CAP	BRASS	1	NICKEL 100 μ " MIN.
6	BODY II	BRASS	1	NICKEL 100 μ " MIN.
5	INSULATION	TEFLON	1	NONE
4	CENTER CONTACT II	BRASS	1	GOLD
3	BODY I	BRASS	1	NICKEL 100 μ " MIN.
2	CENTER CONTACT I	BRASS	1	GOLD
1	INSULATION	TEFLON	1	NONE

APPROVED by _____ DATE: _____

DESCRIPTION		BNC RIGHT ANGLE PCB MOUNT JACK RECEPTACLE						
製圖	DRAWN	TOLERANCE	品名	13-53/RDHS COMPLIANT	日期	DATE	版次	REV.
	Elvis	X ± 0.2	TITLE	(750)	05.15.97		A-1	
檢圖	CHECK	.XX ± 0.1	單位	mm(in)	DWG.NO.	13-0430		
認	Monica	XXX ± 0.05	SCALE	4:1	佳楠精密電子股份有限公司 CHIN NAN PRECISION ELECTRONICS CO.,LTD.			
定	Monica	ANGLE $\pm 5^\circ$	比例					

Datasheet of DC Jack

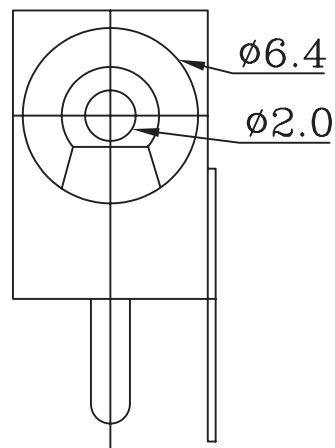
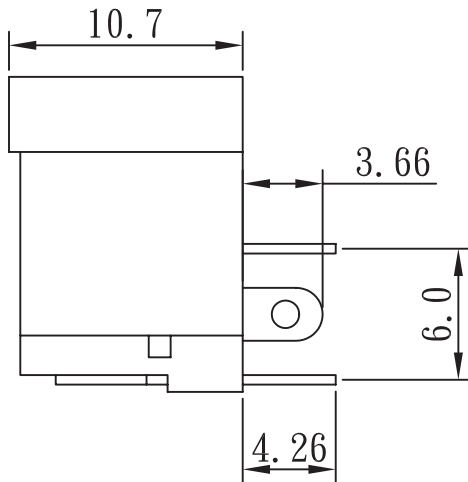
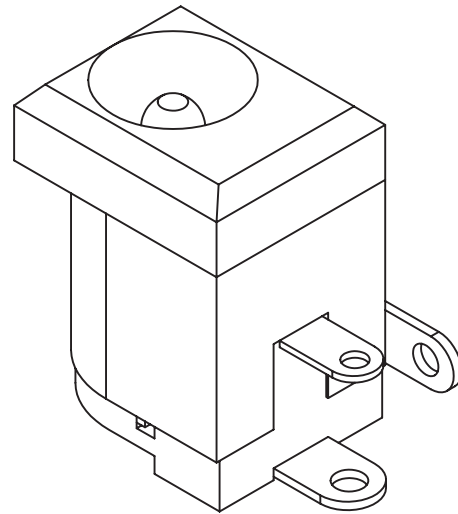
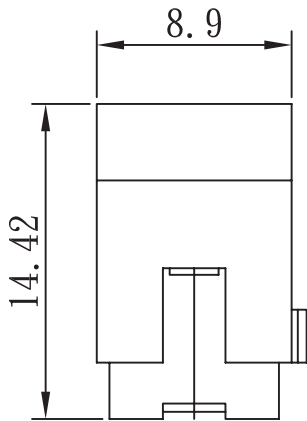
DC POWER JACK

APPLICATION AND FEATURES

1. Compact and low profile design for saving space
2. High reliable contact with low insertion force.
3. Straight and right angle type facilitate engineering design.
4. Mate with flexible Printed Circuit.

SPECIFICATIONS

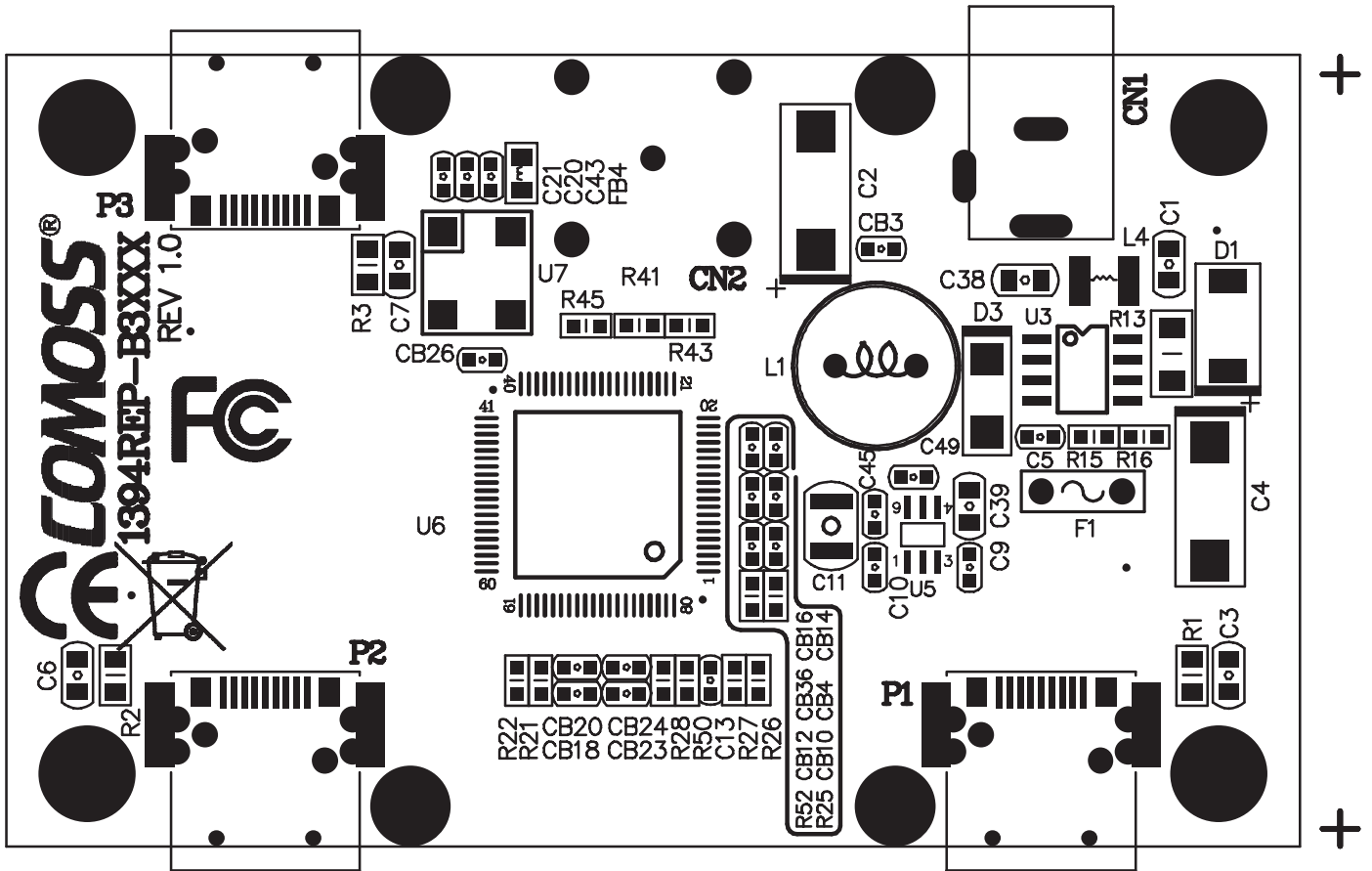
Current Rating	1 Amp
Insulator resistance	5000 Megohms min .
	500v DC for 1 minutes.
Contact resistance	20 m ohm Max.
Dielectric withstanding	AC 500 v for 1 minutes.
Operating Temperature	-40 C ~ 105 C
Contact Material	Phosphor bronze
insulator Material	Polyester, UL 94v-0 standard P.B.S



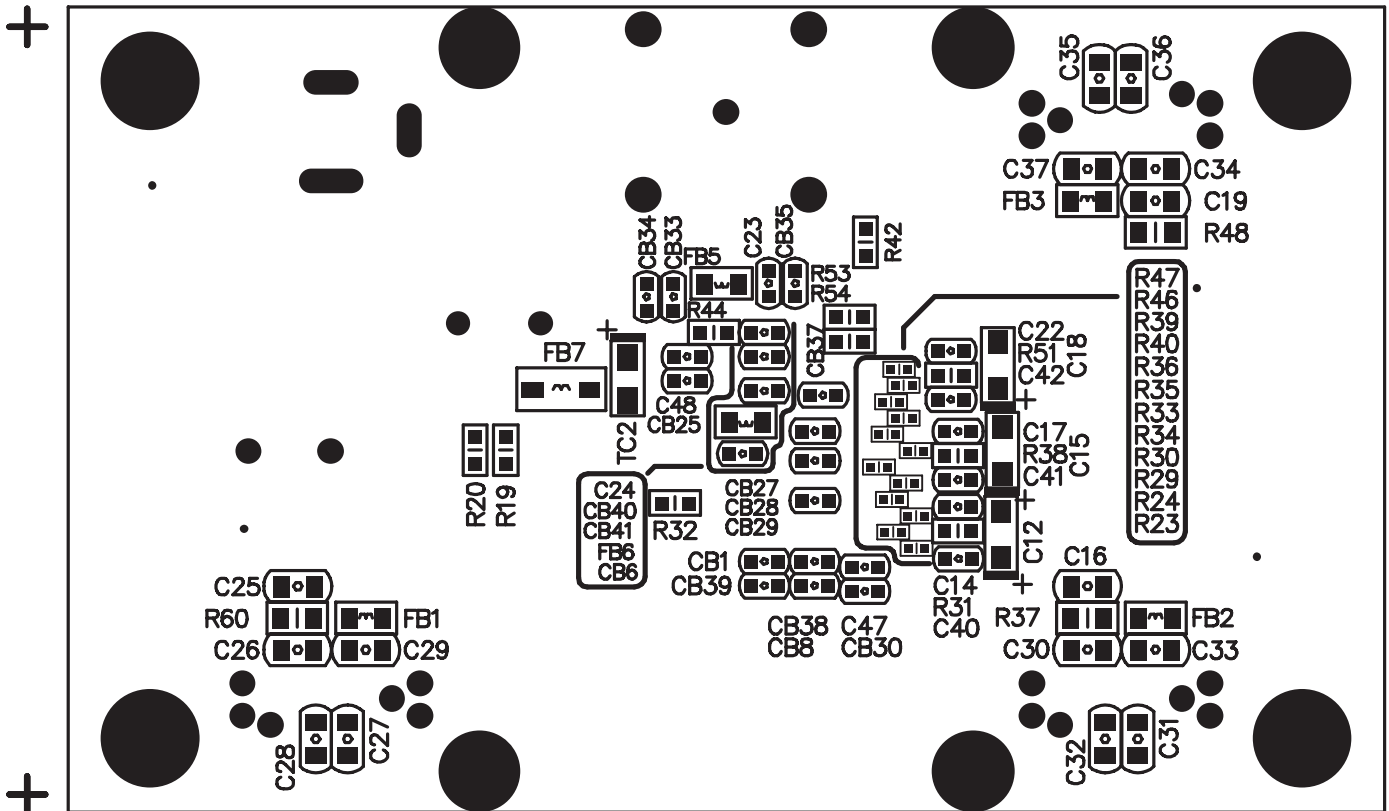
Item	DC-1R20000	Name	Rob	Tolerance	Mears.
Name	D. C POWER JACK	Date	1998-7-8	. X ± 0.38	
Lean Horn Company				. XX ± 0.25	MM
				. XXX ± 0.20	
				ANGLE $\pm 3'$	

Silk Screen and Pictures

Silk Screen of 1394REP-B3000 P.C.B. :



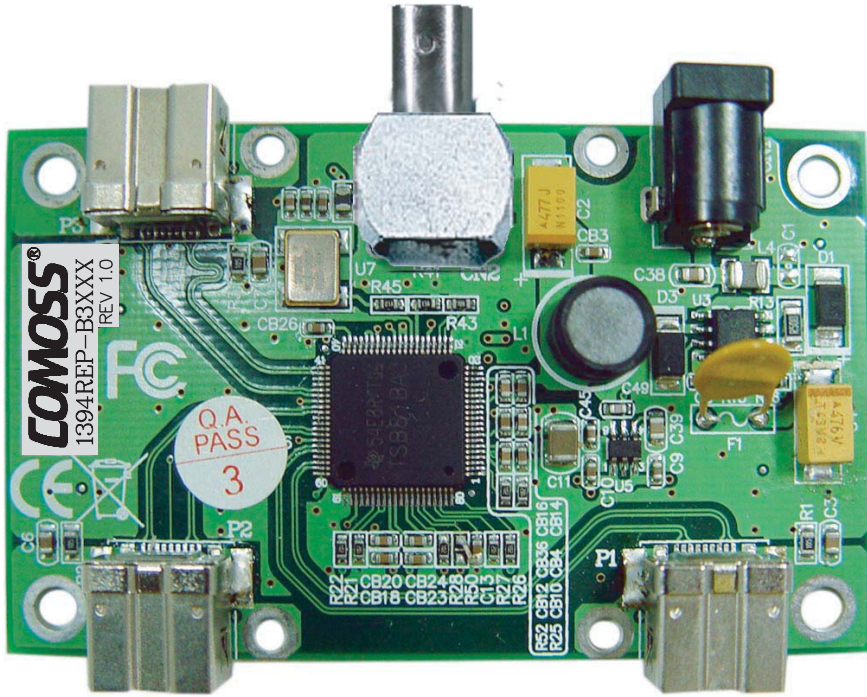
Top Overlay



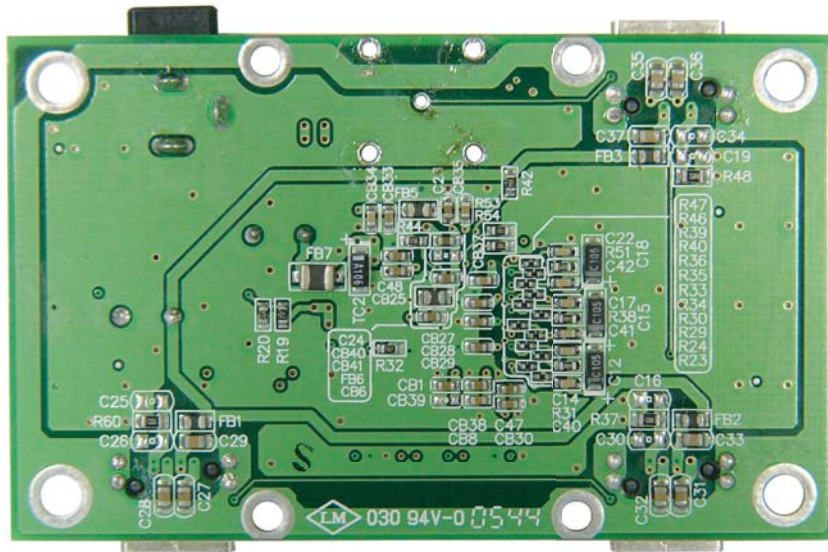
Bottom Overlay

Picture of 1394REP-B3000 PCBA:

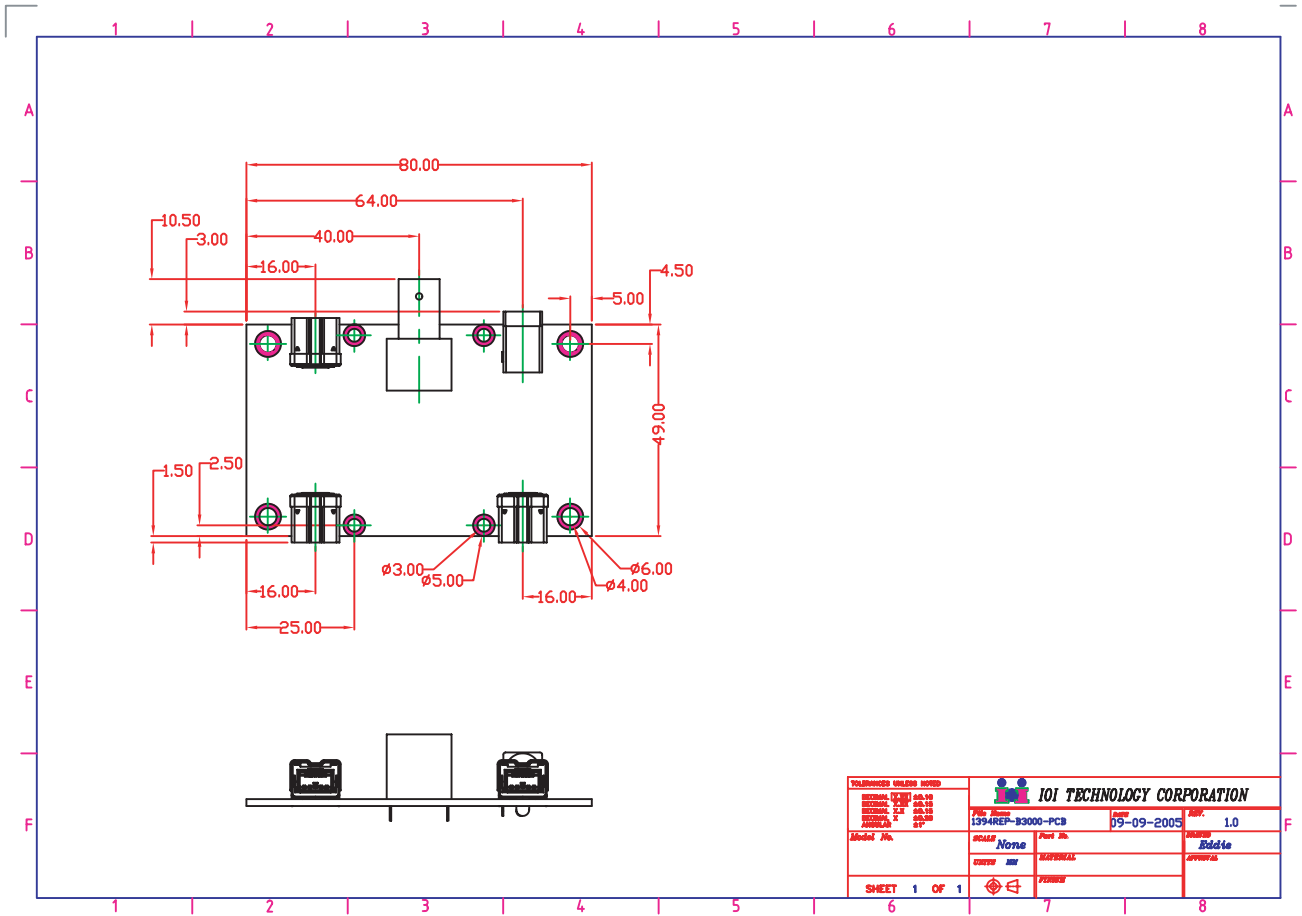
Top View



Bottom View



Mechanical Dimension



Order Information

1394REP - B 2 0 0 0
(1) (2) (3) (4) (5)

(1) Repeater Type:

*B: 1394b interface

(2) Connector NO.:

*2: two 1394b Bilingual 9pin connectors

*3: three 1394b Bilingual 9pin connectors

(3) DC Jack Option:

*0: Without DC jack

*1: With DC jack

(4) BNC Option:

*0: without BNC connector

*1: with BNC connector

(5) Accessory:

*0: without 110/220VAC to 12VDC adapter

*1: with 110/220VAC to 12VDC adapter

COMOSS has developed a series of products including many kinds of IEEE 1394b cable assemblies, 1394 OE converters and another 1394 series products. If there is any product needed, please contact with our Web- site (www.comoss.com). We can also design these products with the customer to meet customer's application requirement. Any OEM& ODM is welcome.