CUI DEVICES

MODEL: UJ31-CH-G-SMT-TR-67 | **DESCRIPTION:** USB RECEPTACLE

FEATURES

- IP67 rated
- surface mount
- USB 3.2 Gen 2
- 10 Gbit/s data transfer speed
- reflow solder compatible

SPECIFICATIONS

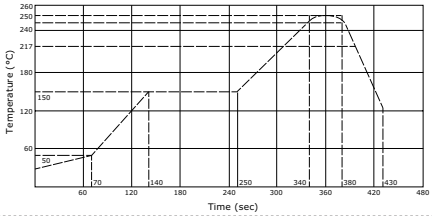
parameter	conditions/description	min	typ	max	units
USB standard	USB 3.2 Gen 2				
rated input voltage				20	Vdc
rated input current	as per EIA-364-70, Method B power pins collectively (A4, A9, B4, B9) GND pins collectively (A1, A12, B1, B12) VCONN pins individually (A5, B5) all other signal pins individually			 5.0 1.25 1.25 0.25	 A A A A
contact resistance[1]	between terminals and mating plug			40	mΩ
insulation resistance	between adjacent contacts	100			MΩ
voltage withstand	between adjacent contacts	100			Vac
insertion force	at a rate of 12.5 mm/min	5		20	N
withdrawal force	at a rate of 12.5 mm/min	8		20	N
life	at a rate of 500 ± 50 cycles per hour		10,000		cycles
operating temperature		-25		85	°C
flammability rating	UL94V-0				
RoHS	yes				
IP level	IP67				

Note: 1. When measured at 20 mV / 100 mA.
2. All specifications measured at 10~35°C, humidity at 45~85%, under standard atmospheric pressure, unless otherwise noted.

SOLDERABILITY

parameter	conditions/description	min	typ	max	units
reel storage	at relative humidity <80%			40	°C
reflow soldering[3]	see reflow profile	245	250	255	°C
drying conditions[4]	parts in reel: bake at 40°C ±5°C for 72 hours parts removed from reel: bake at 40°C ±5°C for 10 hours				

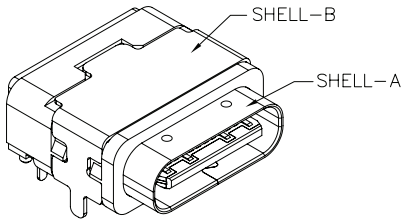
Note: 3. It is recommended to reflow solder within 72 hours from opening vacuum packaging at a temperature <30°C & relative humidity <60%.
4. When exceeding floor life by >72 hours.

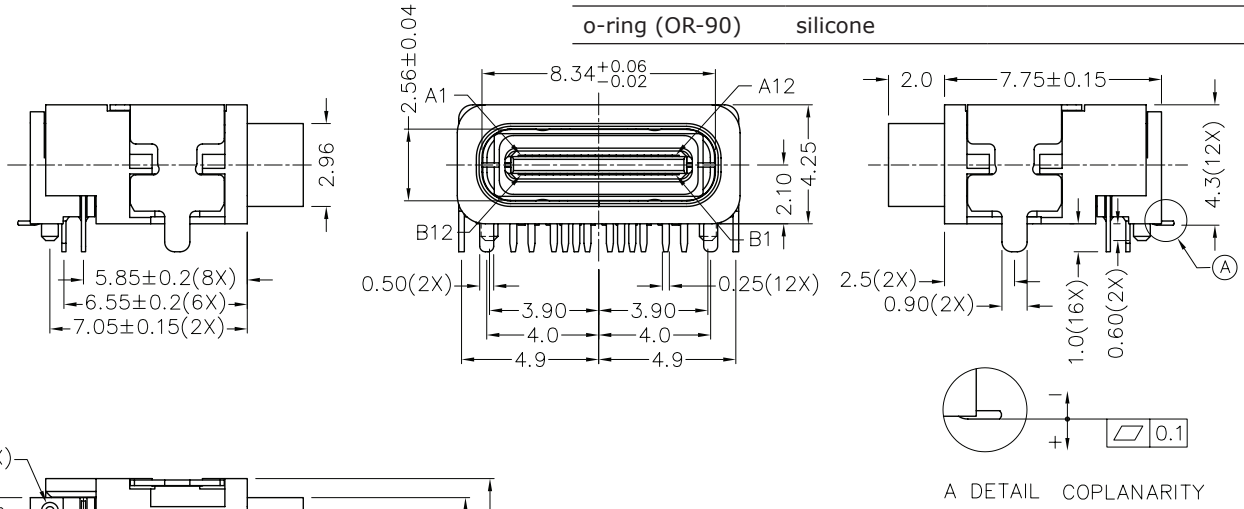


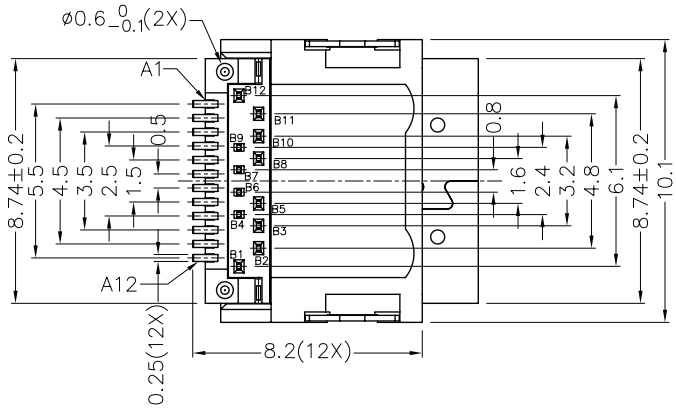
MECHANICAL DRAWING

units: mm
tolerance:
X.X ±0.20 mm
X.XX ±0.10 mm
X.XXX ±0.05 mm

	MATERIAL	PLATING
contact terminals	copper alloy	nickel over all, gold flash on contact and solder area
shell-A	stainless steel	nickel
shell-B	brass	nickel
inner ground cover shell	stainless steel	
mid plate	stainless steel	nickel
insulator	PA10T	black
housing	PA10T	black
o-ring (OR-90)	silicone	

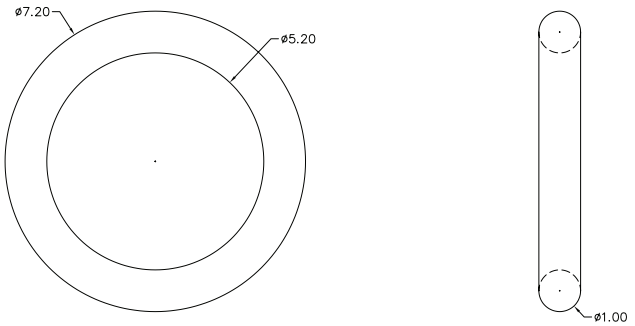






PIN NO.	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
	GND	TX1+	TX1−	VBUS	CC1	D+	D−	SBU1	VBUS	RX2−	RX2+	GND
	GND	RX1+	RX1−	VBUS	SBU2	D−	D+	CC2	VBUS	TX2−	TX2+	GND
PIN NO.	B12	B11	B10	B9	B8	B7	B6	B5	B4	B3	B2	B1

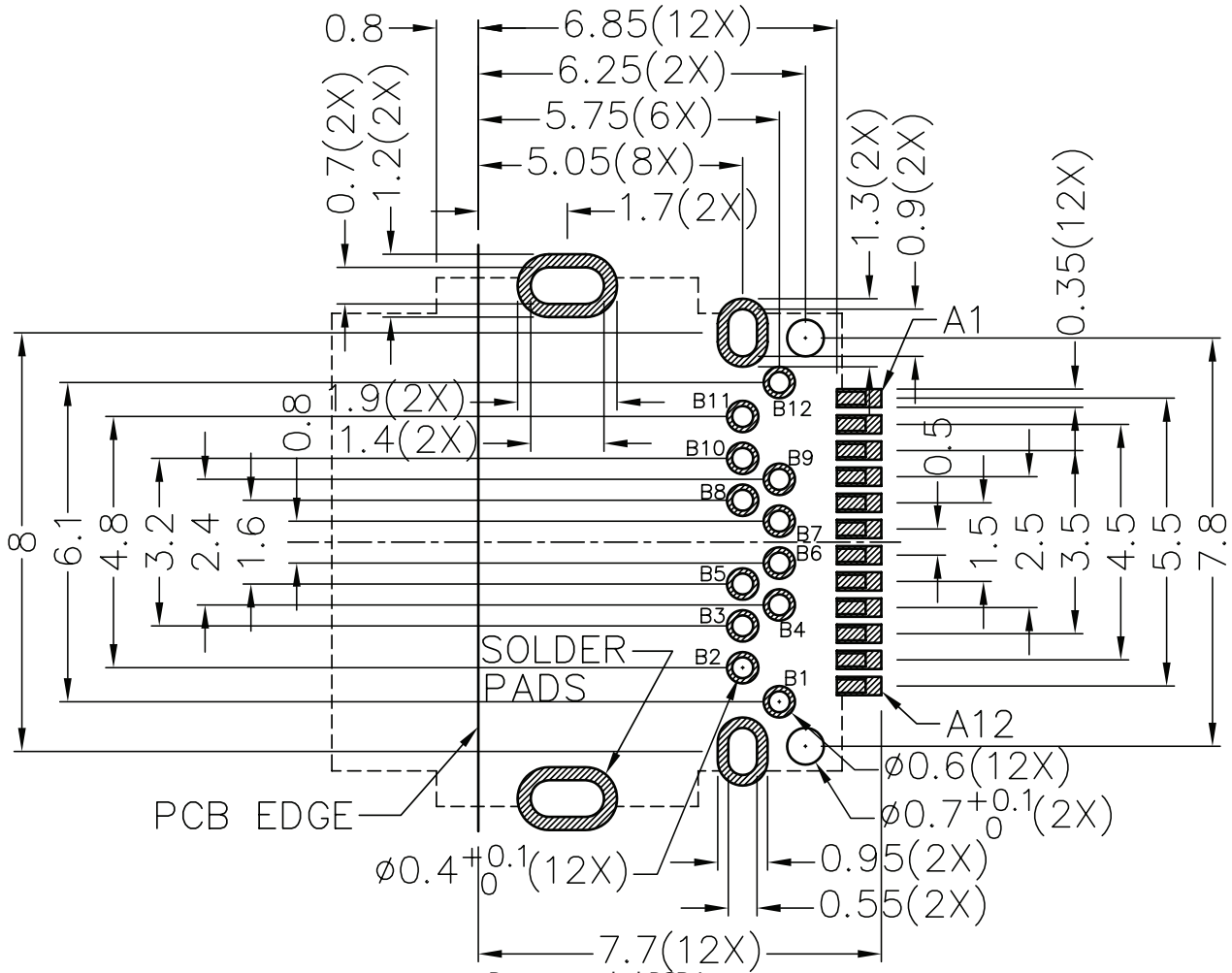
O-ring (P/N: OR-90)



MECHANICAL DRAWING (CONTINUED)

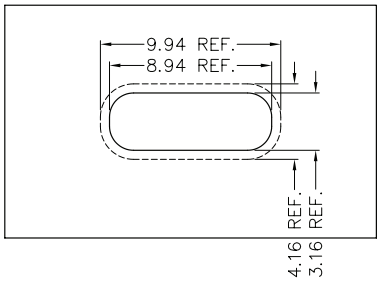
units: mm
PCB tolerance: ±0.05 mm
PCB thickness: 0.6~1.2 mm

PIN CONNECTIONS			
PIN	SIGNAL NAME	PIN	SIGNAL NAME
A1	GND	B12	GND
A2	TX1+	B11	RX1+
A3	TX1-	B10	RX1-
A4	V_{BUS}	B9	V_{BUS}
A5	CC1	B8	SBU2
A6	D+	B7	D-
A7	D-	B6	D+
A8	SBU1	B5	CC2
A9	V_{BUS}	B4	V_{BUS}
A10	RX2-	B3	TX2-
A11	RX2+	B2	TX2+
A12	GND	B1	GND

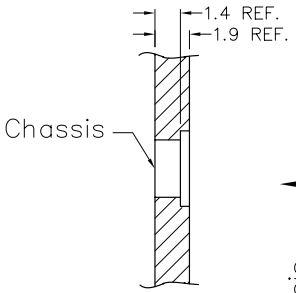


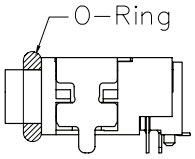
Recommended PCB Layout
Top View

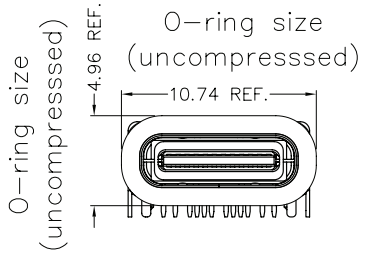
ASSEMBLY REFERENCE

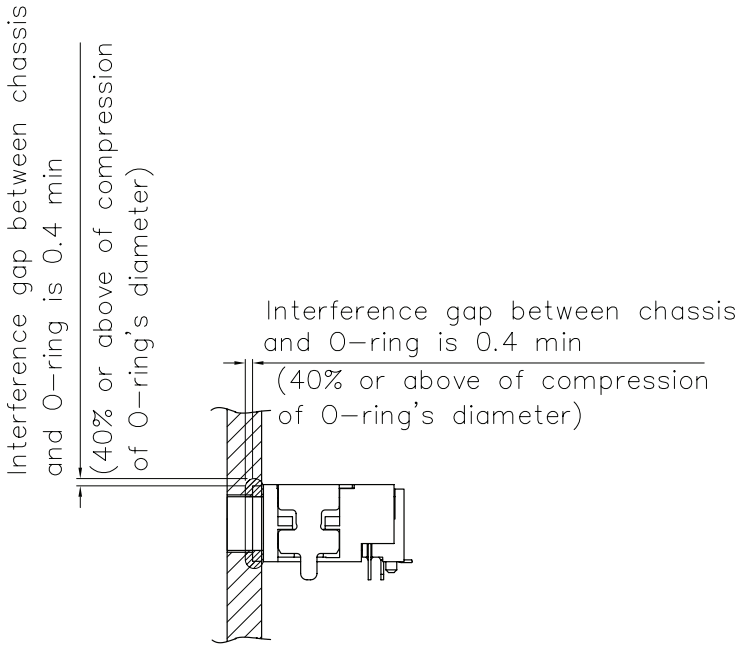


Top View







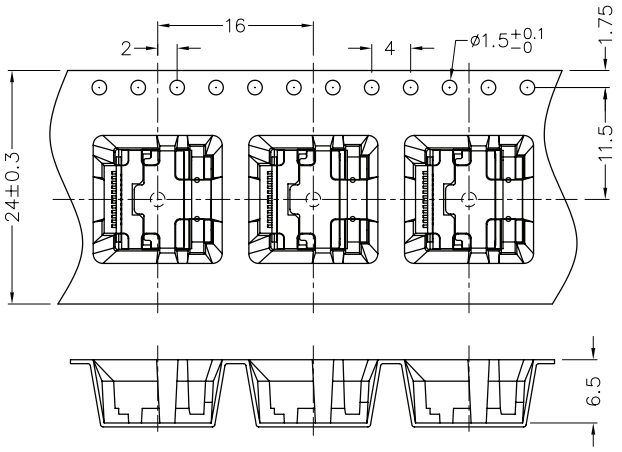


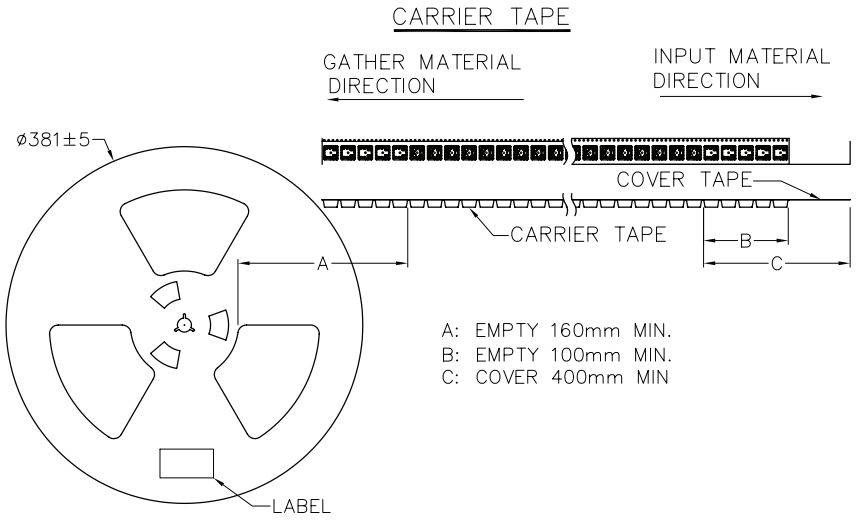
After assembling on chassis

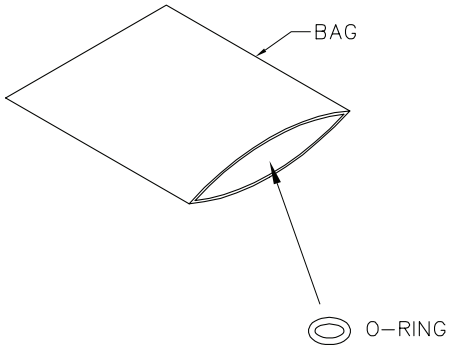
PACKAGING

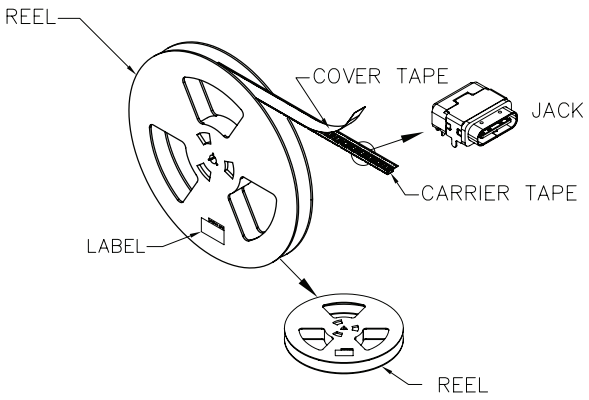
units: mm

Reel Size: Ø381 mm
Reel QTY: 900 pcs per reel









REVISION HISTORY

rev.	description	date
1.0	initial release	06/24/2020
1.01	updated USB standard, added o-ring p/n	04/21/2022

The revision history provided is for informational purposes only and is believed to be accurate.