SERIES: UJ31-CH-SMT | DESCRIPTION: USB RECEPTACLE

FEATURES

- USB Type C receptacle
- USB 3.2 Gen 2
- 10 Gbit/s data transfer speed
- reflow solder compatible
- tape & reel packaging

RoHS

PART NUMBER KEY

UJ31-CH-31 X - SMT - TR

- Base Number
- Back Cover Option:
  "blank" = no back cover
  N = back cover w/o solder terminals
  2 = back cover w/ 2 solder terminals
  4 = back cover w/ 4 solder terminals
- Packaging Style:
  SMT = surface mount
- Packaging Options:
  TR = Tape & Reel

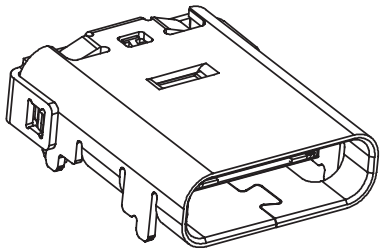
SPECIFICATIONS

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 6.25 1.25 0.25	 A A A A
contact resistance[1]	between terminals and mating plug			40	mΩ
insulation resistance	at 100 Vdc for 1 minute between adjacent contacts	100			MΩ
voltage withstand	at 60 Hz for 1 minute 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 200 max cycles per hour		10,000		cycles
operating temperature		-30		85	°C
storage temperature		-40		85	°C
flammability rating	UL94V-0				
RoHS	yes				

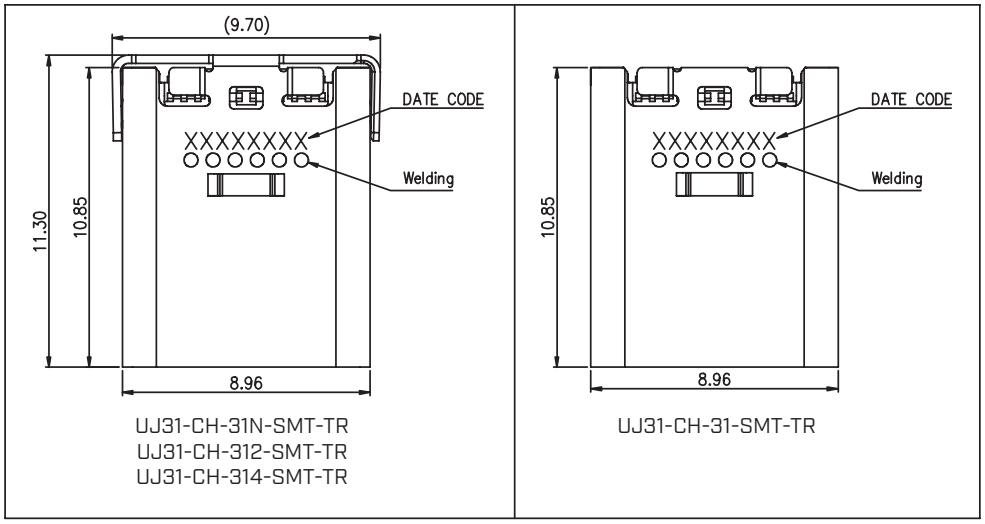
Note: 1. When measured at 20 mV max / 100 mA.

MECHANICAL DRAWING

units: mm
tolerance:
X.X ±0.20 mm
X.XX ±0.15 mm



	MATERIAL	PLATING
contact terminals	copper alloy	contact: 2 µ" gold solder: tin
shell	stainless steel	nickel
EMI shell	stainless steel	
mid plate	stainless steel	tin
insulator	PA9T	



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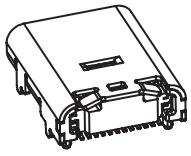	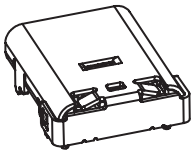
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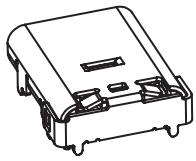
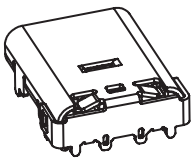
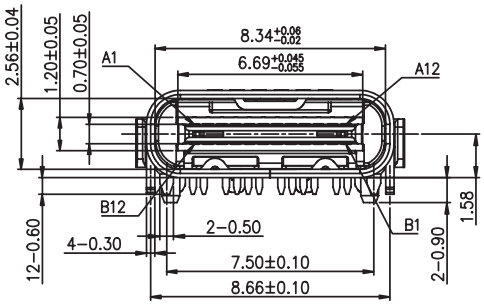
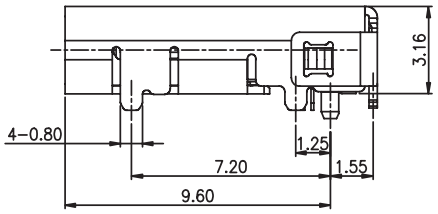
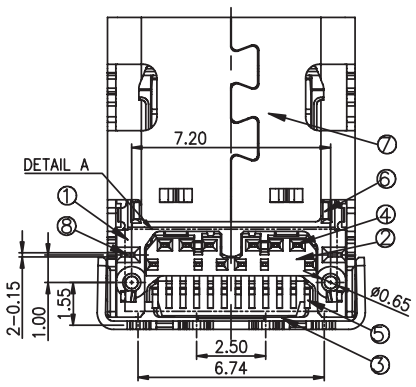
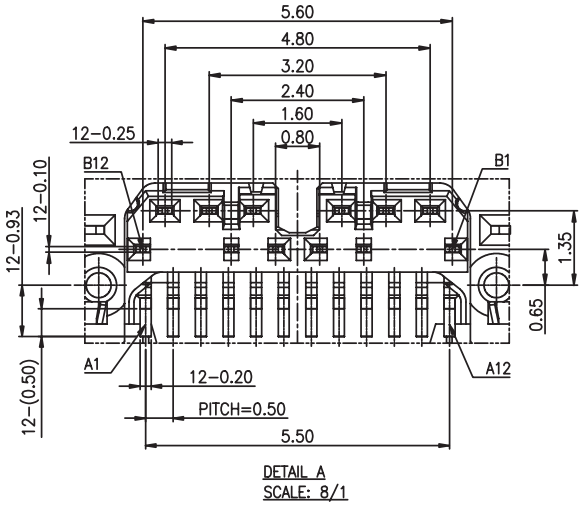
	





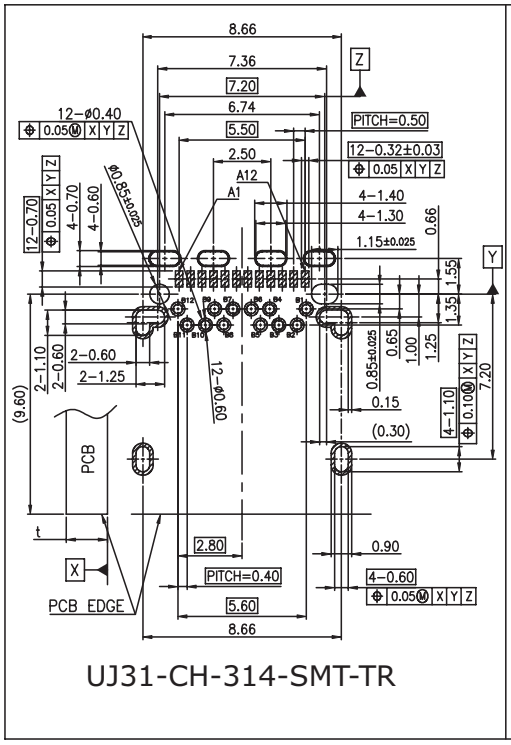




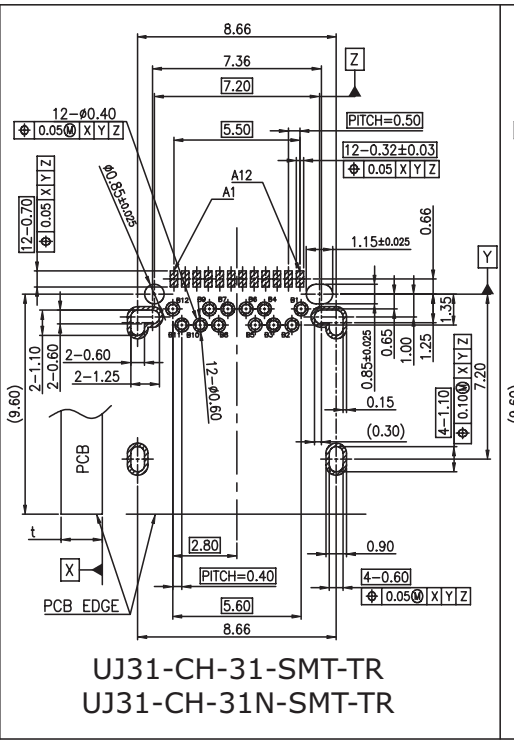
MECHANICAL DRAWING (CONTINUED)

units: mm
PCB tolerance: ±0.05 mm

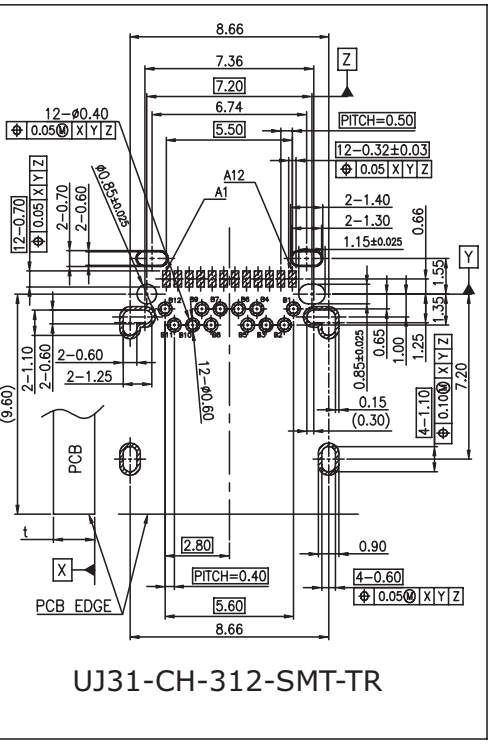
PIN CONNECTIONS					
PIN	SIGNAL NAME	MATING SEQUENCE	PIN	SIGNAL NAME	MATING SEQUENCE
A1	GND	FIRST	B12	GND	FIRST
A2	SSTXp1	SECOND	B11	SSRXp1	SECOND
A3	SSTXn1	SECOND	B10	SSRXn1	SECOND
A4	V_{BUS}	FIRST	B9	V_{BUS}	FIRST
A5	CC1	SECOND	B8	SBU2	SECOND
A6	Dp1	SECOND	B7	Dn2	SECOND
A7	Dn1	SECOND	B6	Dp2	SECOND
A8	SBU1	SECOND	B5	CC2	SECOND
A9	V_{BUS}	FIRST	B4	V_{BUS}	FIRST
A10	SSRXn2	SECOND	B3	SSTXn2	SECOND
A11	SSRXp2	SECOND	B2	SSTXp2	SECOND
A12	GND	FIRST	B1	GND	FIRST
SHELL		GND	SHELL		GND



UJ31-CH-314-SMT-TR



UJ31-CH-31-SMT-TR
UJ31-CH-31N-SMT-TR



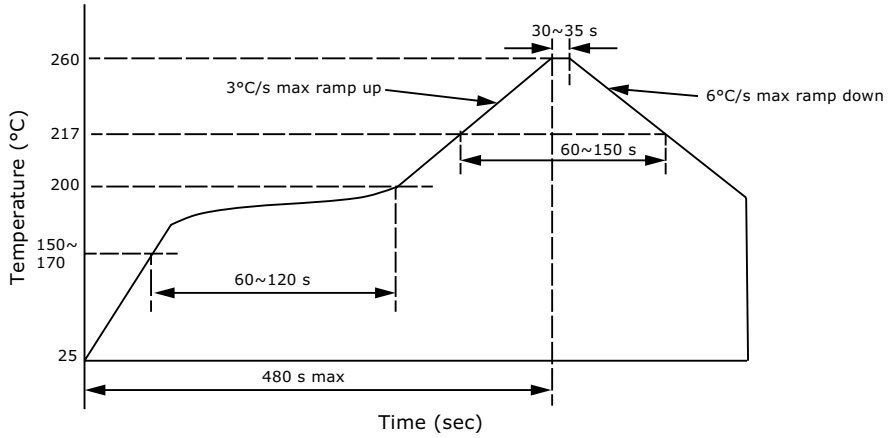
UJ31-CH-312-SMT-TR

Recommended PCB Layout
Top View

SOLDERABILITY

parameter	conditions/description	min	typ	max	units
reel storage	at relative humidity <60%			30	°C
reflow soldering[1]	see reflow profile	255	260	265	°C

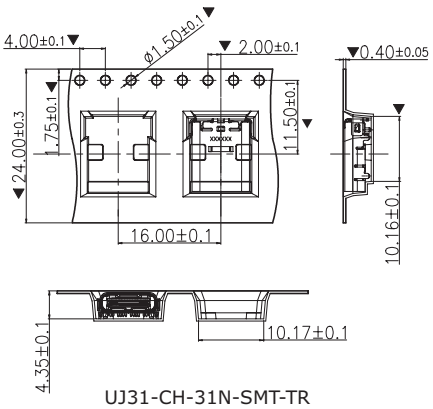
Note: 1. It is recommended to reflow solder within 168 hours from opening vacuum packaging at a temperature <30°C & relative humidity <60%.



PACKAGING

units: mm

Reel Size: Ø380 mm
Reel QTY: 1,200 pcs per reel



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UJ31-CH-312-SMT-TR
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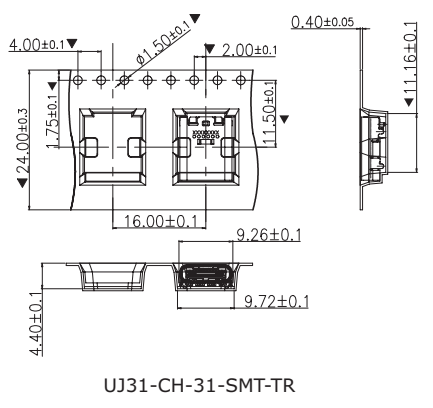

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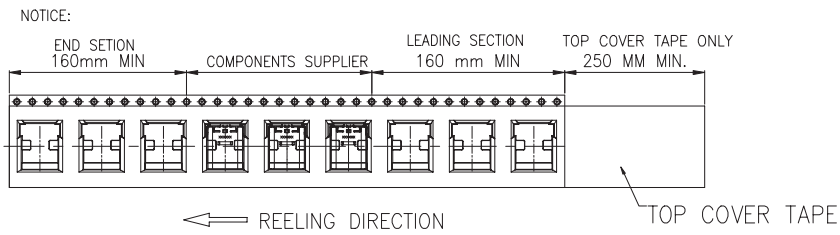

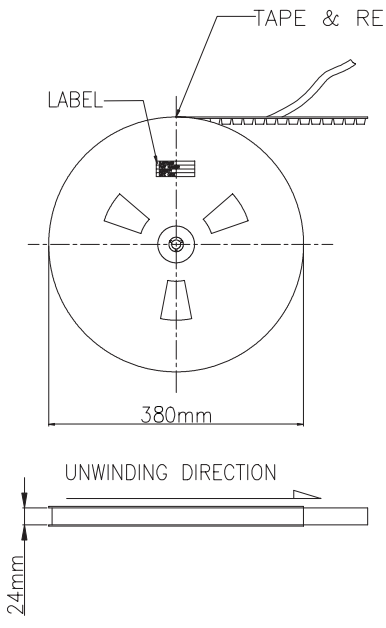

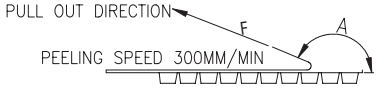

COVER TYPE PEELING FORCE

A	165°–180°
F	30~125g

REVISION HISTORY

rev.	description	date
1.0	initial release	12/19/2017
1.01	updated reel details	01/19/2018
1.02	updated datasheet	01/30/2018
1.03	brand update	01/28/2020
1.04	updated USB standard	04/19/2022
1.05	logo, datasheet style update	08/05/2022

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

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