



- ✓ Narrow depth & width with friction lock
- ✓ High-data-rate transfer, ideal for USB® 3.1 (5 Gbps/lane) applications
- ✓ Tuning fork design terminal, excellent wiping power and durable to contamination

Pin counts:

Range	Up to 40
Available	10, 15, 20, 25, 30, 35, 40

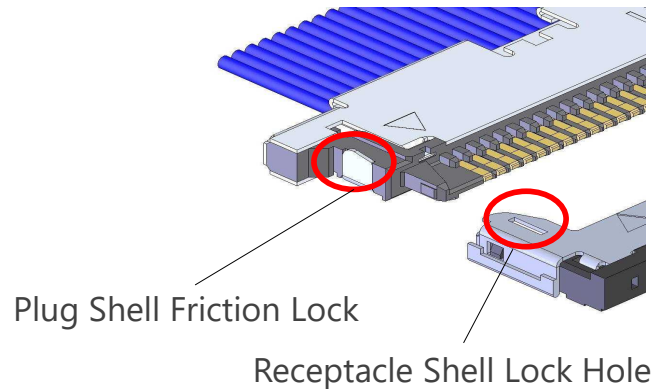
\*Please inquire for pin counts not listed or outside of the pin count range.

Mating type	Horizontal	
Wire pitch (mm)	0.4	
Board pitch (mm)	0.4	
Mated size (mm)	Height	1.0 +/- 0.15
	Width Formula	4.8 + (0.4*?p)
	Depth	5.65
Wiping length (mm)	0.71	
Applicable wire (AWG#)	Micro-coaxial for signals	45Ω : #38 or smaller 50Ω : #40 or smaller
	Twincoaxial	#40
	Discrete	#36 or smaller
Contact point	Top	
Performance (Reference only)	USB 3.0 Gen1 (5 Gbps) eDP HBR 1 (2.7 Gbps)	

## Narrow depth & width with friction lock

Width (mm)	$4.8 + (0.4 * ?p)$
Depth (mm)	5.65

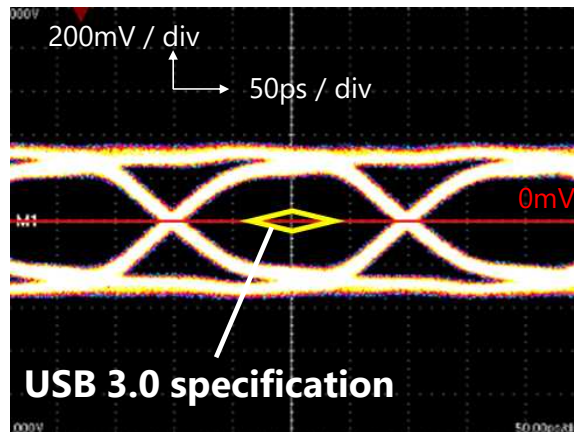
CABLINA V 35p Retention Force	
With Friction Lock Type	12N
Without Friction Lock Type	8N



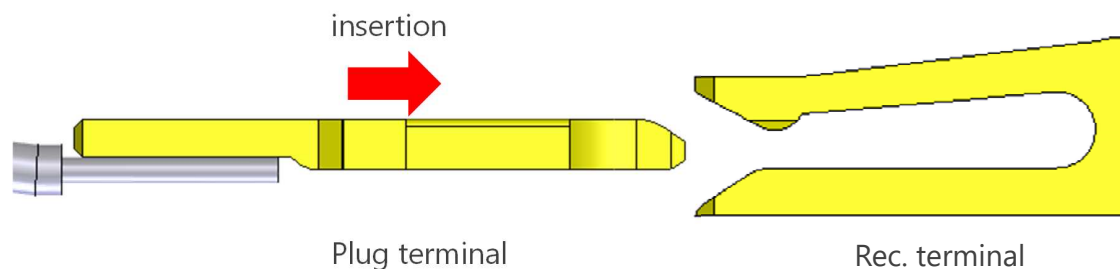
## High-data-rate transfer, ideal for USB® 3.1 (5 Gbps/lane) applications

Eye pattern (Differential)  
 Bit rate : 5 Gbps  
 Rise time : 60ps (10-90%)  
 Input voltage : 800mVp-p

\*Please contact I-PEX for more test details.



## Tuning fork design terminal, excellent wiping power and durable to contamination

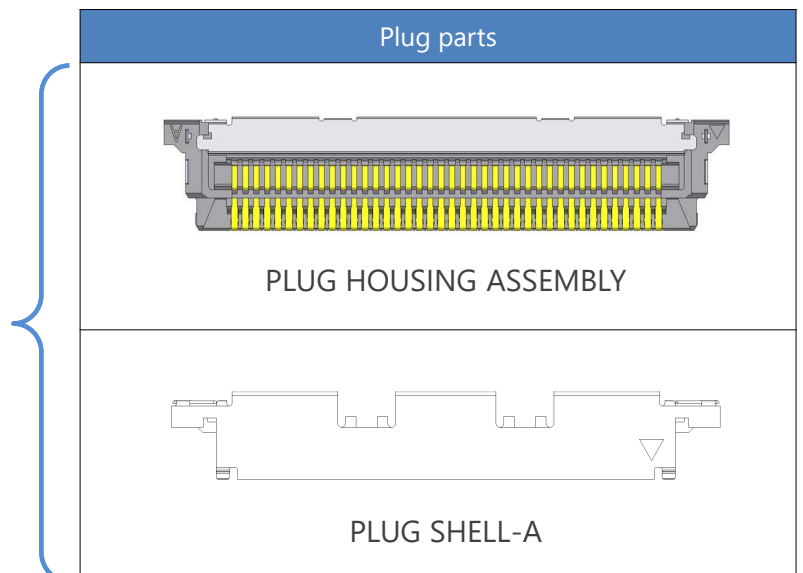
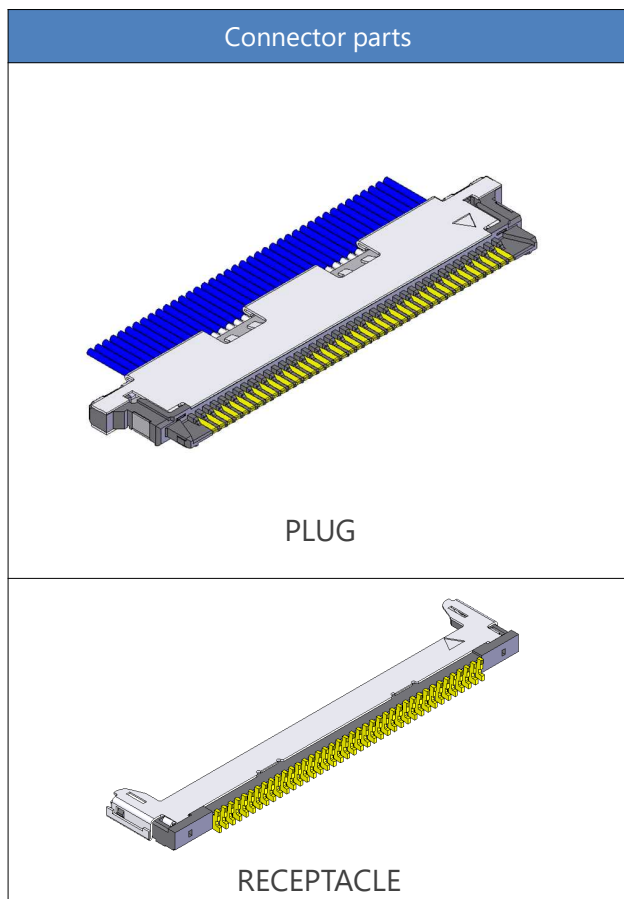


Contamination would be wiped off during insertion

# CABLIN<sup>®</sup> V

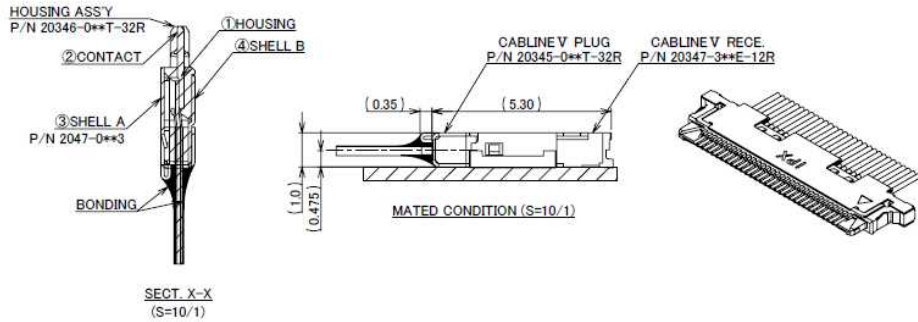
## Component Parts Detail

### Component Parts:

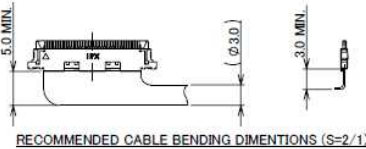


# Plug for Cable Assembly :

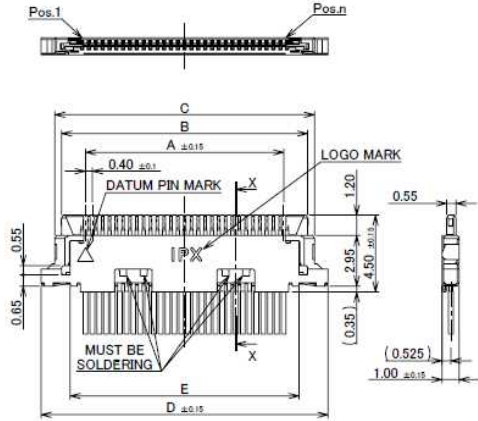
Recommended P/N		20345-0**T-32R				
PART NO.	POS.	A	B	C	D	E
20345-010T-32R	10	3.6	6.4	7.2	8.8	5.4
20345-015T-32R	15	5.6	8.4	9.2	10.8	7.4
20345-020T-32R	20	7.6	10.4	11.2	12.8	9.4
20345-025T-32R	25	9.6	12.4	13.2	14.8	11.4
20345-030T-32R	30	11.6	14.4	15.2	16.8	13.4
20345-035T-32R	35	13.6	16.4	17.2	18.8	15.4
20345-040T-32R	40	15.6	18.4	19.2	20.8	17.4



SECT. X-X  
(S=10/1)



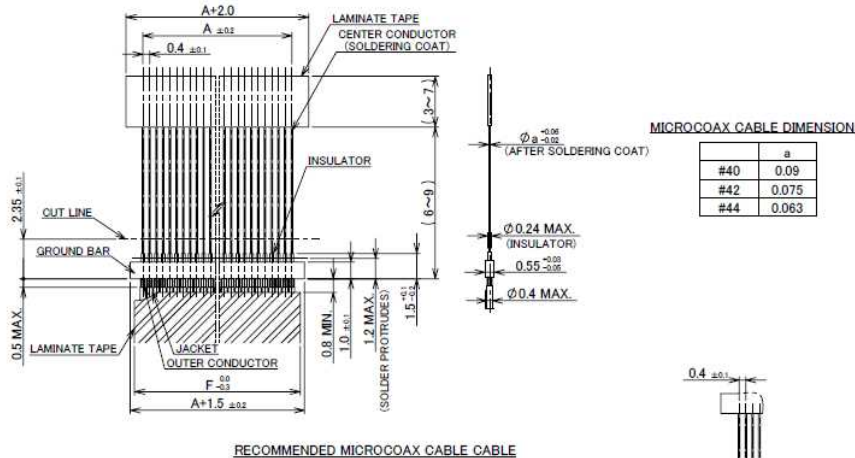
RECOMMENDED CABLE BENDING DIMENSIONS (S=2/1)



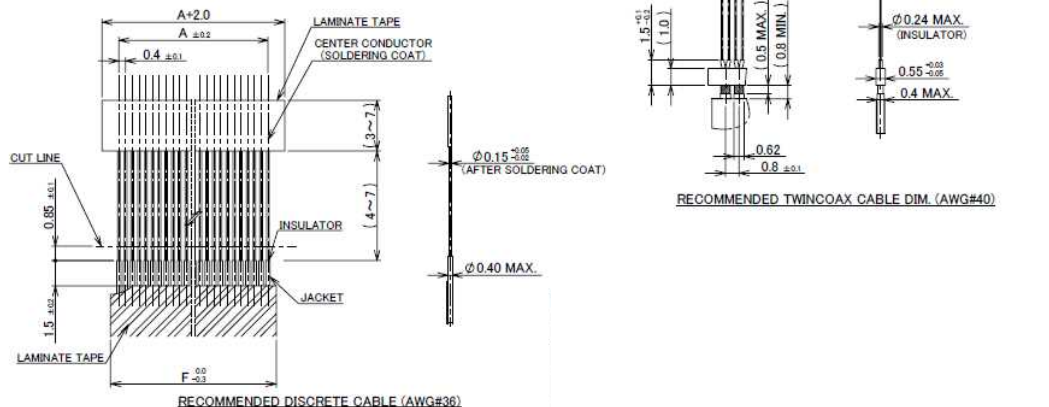
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	SHELL B	PHOSPHOR BRONZE	Sn 1.00 μm MIN. OVER Ni 1.00 μm MIN.
3	SHELL A	SUS	Sn 1.00 μm MIN. OVER Ni 0.50 μm MIN.
2	CONTACT	BRASS	ALL OVER: Ni 1.00 μm MIN. UNDER PLATING CONTACT AREA: Au 0.10 μm MIN. SOLDERING AREA: Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0, BRACK

Rev.27

PART NO.	POS.	A	F
20345-010T-32R	10	3.6	4.6
20345-015T-32R	15	5.6	6.6
20345-020T-32R	20	7.6	8.6
20345-025T-32R	25	9.6	10.6
20345-030T-32R	30	11.6	12.6
20345-035T-32R	35	13.6	14.6
20345-040T-32R	40	15.6	16.6



RECOMMENDED MICROCOAX CABLE CABLE



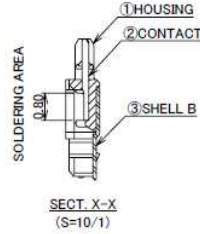
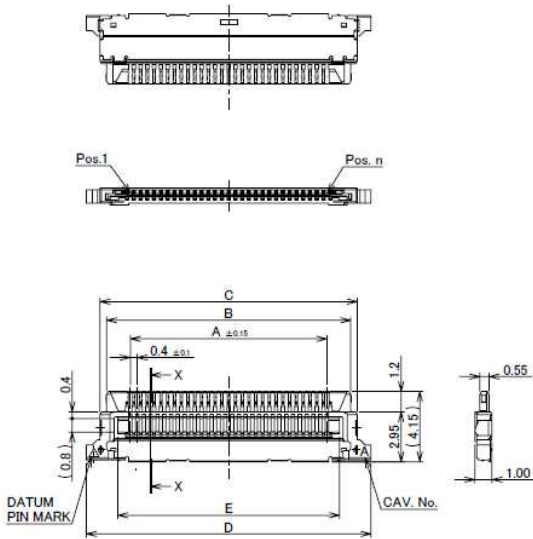
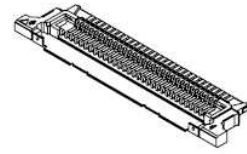
RECOMMENDED DISCRETE CABLE (AWG#36)

RECOMMENDED TWINCOAX CABLE DIM. (AWG#40)

Rev.27

# Plug Housing Assembly :

Recommended P/N		20346-0**T-32R				
PART NO.	POS.	A	B	C	D	E
20346-010T-32R	10	3.6	6.4	7.2	8.8	5.1
20346-015T-32R	15	5.6	8.4	9.2	10.8	7.1
20346-020T-32R	20	7.6	10.4	11.2	12.8	9.1
20346-025T-32R	25	9.6	12.4	13.2	14.8	11.1
20346-030T-32R	30	11.6	14.4	15.2	16.8	13.1
20346-035T-32R	35	13.6	16.4	17.2	18.8	15.1
20346-040T-32R	40	15.6	18.4	19.2	20.8	17.1

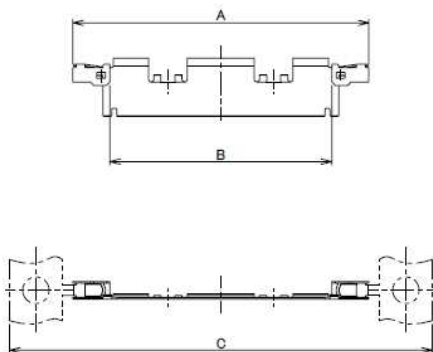
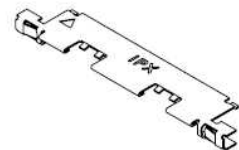


3	SHELL B	PHOSPHOR BRONZE	Sn 1.00 $\mu$ m OVER Ni 1.00 $\mu$ m MIN.
2	CONTACT	BRASS	ALL OVER: Ni 1.00 $\mu$ m MIN. UNDER PLATING CONTACT AREA: Au 0.10 $\mu$ m MIN. SOLDERING AREA: Au 0.03 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0, BRACK
NO.	DISCRPTION	MATERIAL	FINISH , REMARKS

Rev.22

# Plug Shell-A:

Recommended P/N		2047-0**3			
PART NO.	A	B	C	D	
2047-0103	8.8	4.6	19.5	5.4	
2047-0153	10.8	6.6	19.5	7.4	
2047-0203	12.8	8.6	19.5	9.4	
2047-0253	14.8	10.6	27.5	11.4	
2047-0303	16.8	12.6	27.5	13.4	
2047-0353	18.8	14.6	27.5	15.4	
2047-0403	20.8	16.6	27.5	17.4	



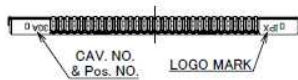
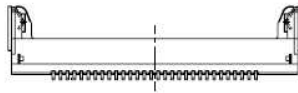
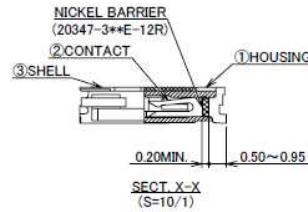
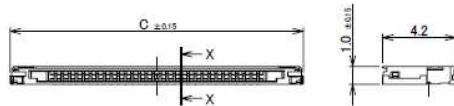
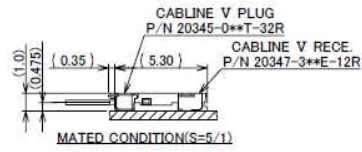
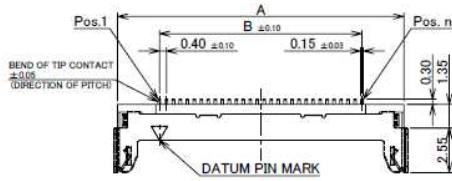
1	SHELL A	SUS	Sn 1.00 $\mu$ m MIN. OVER Ni 0.50 $\mu$ m MIN.
NO.	DISCRPTION	MATERIAL	FINISH , REMARKS

Rev.21

# Receptacle Assembly :

Recommended P/N 20347-3\*\*E-12R

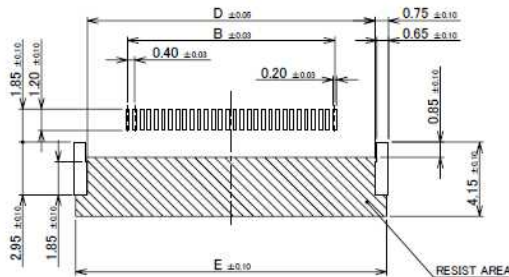
PART NO.	POS.	A	B	C
20347-310E-12R	10	8.40	3.60	8.80
20347-315E-12R	15	10.40	5.60	10.80
20347-320E-12R	20	12.40	7.60	12.80
20347-325E-12R	25	14.40	9.60	14.80
20347-330E-12R	30	16.40	11.60	16.80
20347-335E-12R	35	18.40	13.60	18.80
20347-340E-12R	40	20.40	15.60	20.80



NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL	PHOSPHOR BRONZE	Sn 1.00 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 1.00 μm MIN. UNDER PLATING CONTACT AREA: Au 0.10 μm MIN. SOLDERING AREA: Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0, BRACK

Rev.34

PART NO.	POS.	B	D	E
20347-310E-12R	10	3.60	8.10	9.40
20347-315E-12R	15	5.60	10.10	11.40
20347-320E-12R	20	7.60	12.10	13.40
20347-325E-12R	25	9.60	14.10	15.40
20347-330E-12R	30	11.60	16.10	17.40
20347-335E-12R	35	13.60	18.10	19.40
20347-340E-12R	40	15.60	20.10	21.40

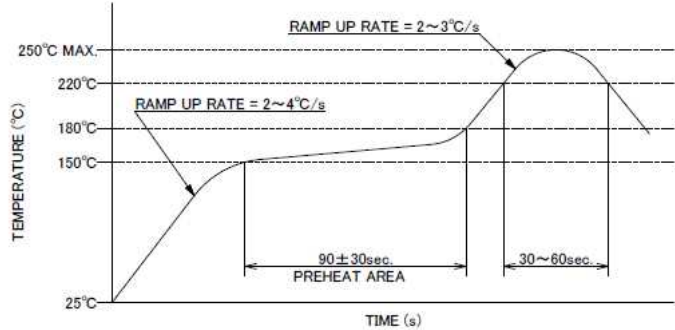
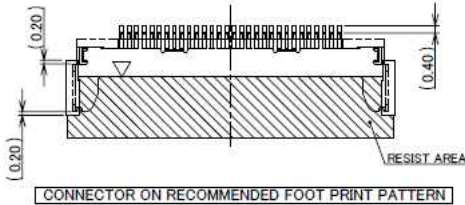


RECOMMENDED FOOT PRINT PATTERN & METALMASK LAYOUT  
RECOMMENDED METALMASK THICKNESS : t=0.12

NOTES.  
1. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.  
2. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

Rev.34





Rev.34

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO COAX : AWG# 44,42,40 DISCRETE : AWG# 36 TWINCOAX : AWG# 40
RATING VOLTAGE	100V AC (PER CONTACT)
RATING AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG#44] PER CONTACT / UP TO 40 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT / UP TO 40 CONTACTS 0.3A AC/DC [AWG#40] PER CONTACT / UP TO 40 CONTACTS 0.8A AC/DC [AWG#36] PER CONTACT / UP TO 12 CONTACTS ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 235mohm MAX.(AWG#36) / AFTER TEST : <math>\triangleleft</math>40mohm MAX. 560mohm MAX.(AWG#40) 650mohm MAX.(AWG#42) 1040mohm MAX.(AWG#44)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : <math>\triangleleft</math>40mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	10P : 20.0N MAX. 15P : 22.5N MAX. 20P : 25.0N MAX. 25P : 27.5N MAX. 30P : 30.0N MAX. 35P : 32.5N MAX. 40P : 35.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	10P : 4.0N MIN. 15P : 5.0N MIN. 20P : 5.5N MIN. 25P : 6.0N MIN. 30P : 7.0N MIN. 35P : 8.0N MIN. 40P : 8.5N MIN.
CABLE RETENTION FORCE	10P : 4.90N MIN. 15P : 7.35N MIN. 20P : 9.80N MIN. 25P : 12.25N MIN. 30P : 14.70N MIN. 35P : 17.15N MIN. 40P : 19.60N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	P/N 20347-3**E-12R : PRS-1461
TEST REPORT	P/N 20347-3**E-12R : TR-08068
PACKING STANDARD	300-308
INSTRUCTION MANUAL	HIM-03005
ASSEMBLY MANUAL	ASM-03002
APPEARANCE CRITERIA NO.	QLS-A***

Rev.34



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