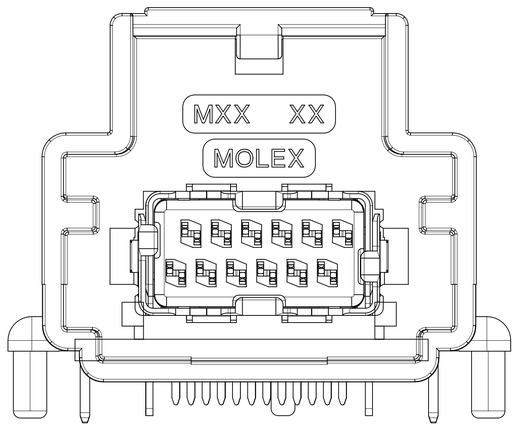


KEY OPTION - A
COLOR - BLACK

NOTES:

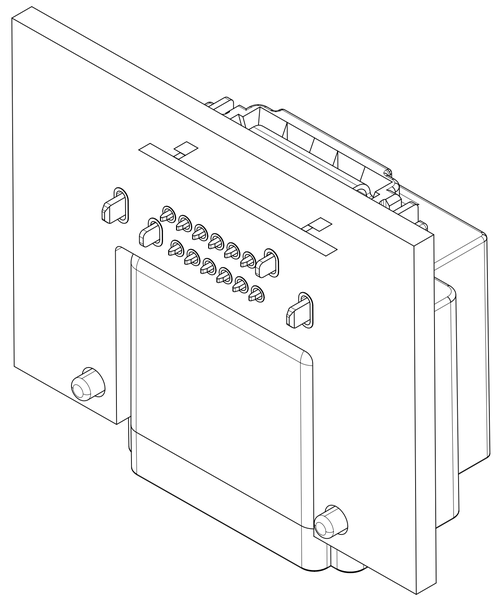
1. GENERAL:
a. APPLICATION SPECIFICATION SEE: AS-111149-002
A1 b. PRODUCT SPECIFICATION SEE: 2257721200.
c. PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-31302-213
d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: QEHS-699000-300
e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)
f. PCB TO BE FR4 .062" (1.57mm) THICK
g. MATING CONNECTOR MINIMUM CLEARANCE: REGION TO REMAIN CLEAR OF MODULE COMPONENTS, ADHESIVE, DEBRIS, ETC.

2. DESIGN - MATERIALS:
a. HEADER HOUSING - SPS GF30%
b. TERMINALS - COPPER ALLOY
OVERMOLDING - LCP GF30%
MATE-SIDE PLATING: SELECTIVE GOLD OVER NICKEL
PCB-SIDE PLATING: TIN OVER NICKEL
c. BISCUIT HOUSING - SPS GF30%
d. SHIELDS - COPPER ALLOY
PLATING (OVERALL): TIN OVER NICKEL

3. DESIGN - GEOMETRY:
a. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M-2009
b. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
c. CORNERS SHOWN AS SHARP TO BE R0.2 MAX.

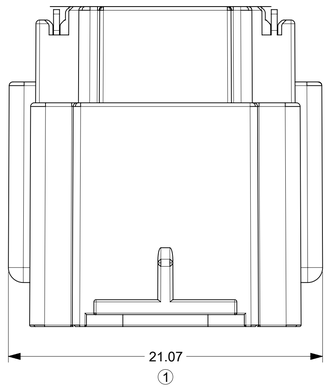
4. LASER MARKING TO BE MARKED WITH:
HUMAN READABLE CODE (HRC)
-PERMANENTLY APPLIED ON THE PART WITH 1.5mm LETTER SIZE
5DIGIT JULIAN MANUFACTURING DATE STAMP YYDDD

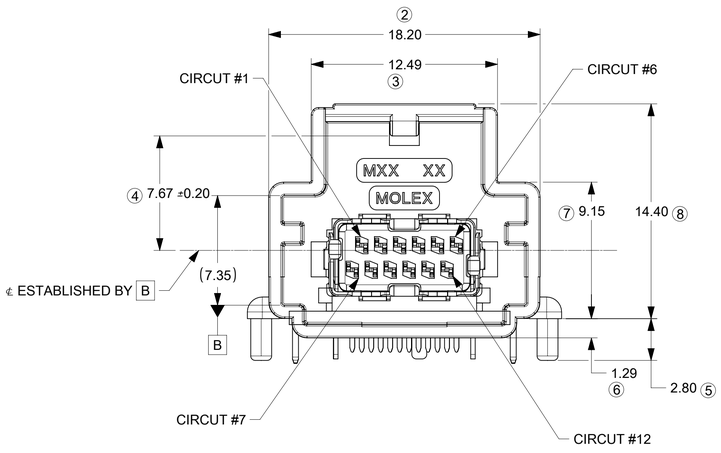
12 CKT UNSEALED RIGHT ANGLE HEADER ASSEMBLY

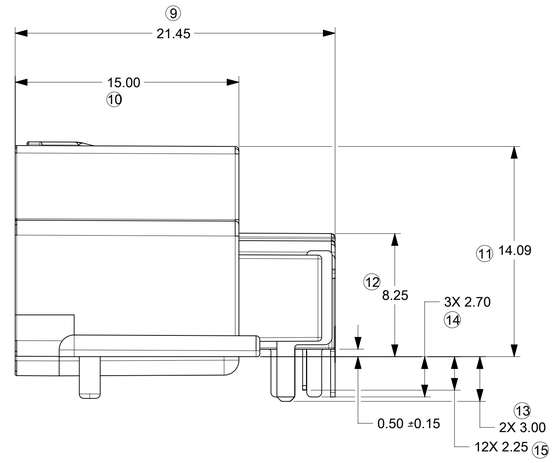


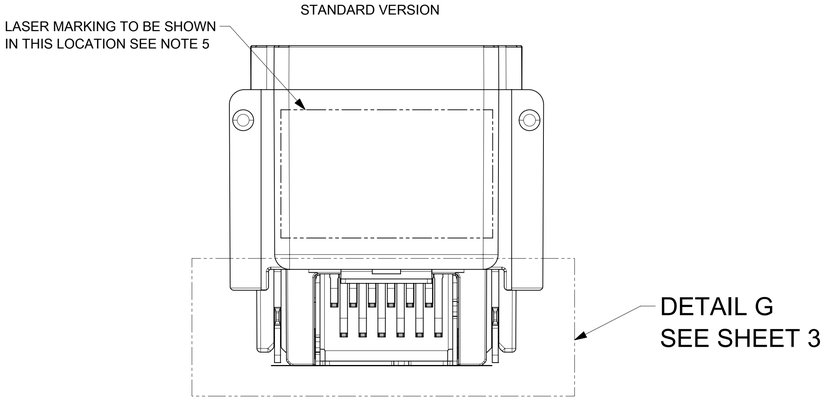
PART NUMBER	POLARIZATION	TERMINAL	DESCRIPTION
2257701016	KEY A	12CKT (6X2)	HSAL2-RA-THRU-UNSEALED ENHANCED-KEY-A-12CKT

REV	DESCRIPTION	ENGINEER	DATE
A1	UPDATED PS SPEC PN TO 2257721200 WAS PS-34861-001.	MANISH TIWARI	2024/09/09
A	INITIAL RELEASE	PRAVEEN KUMAR	2023/09/20

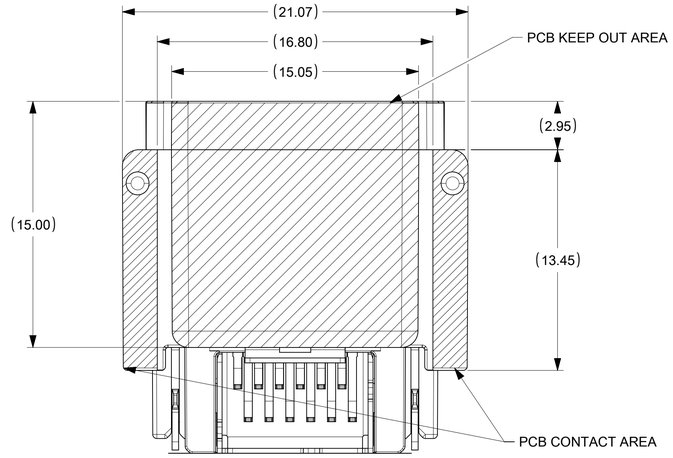




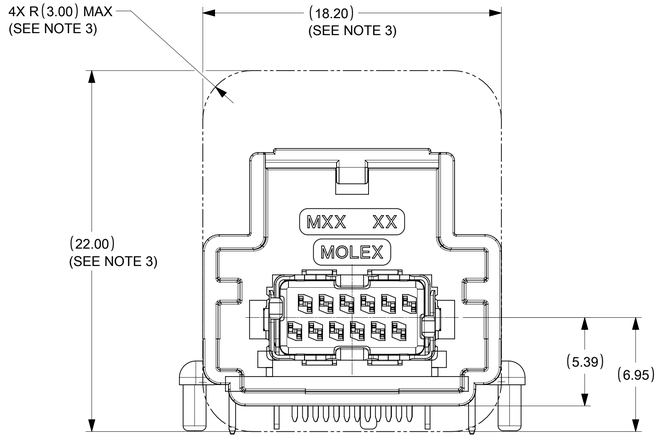




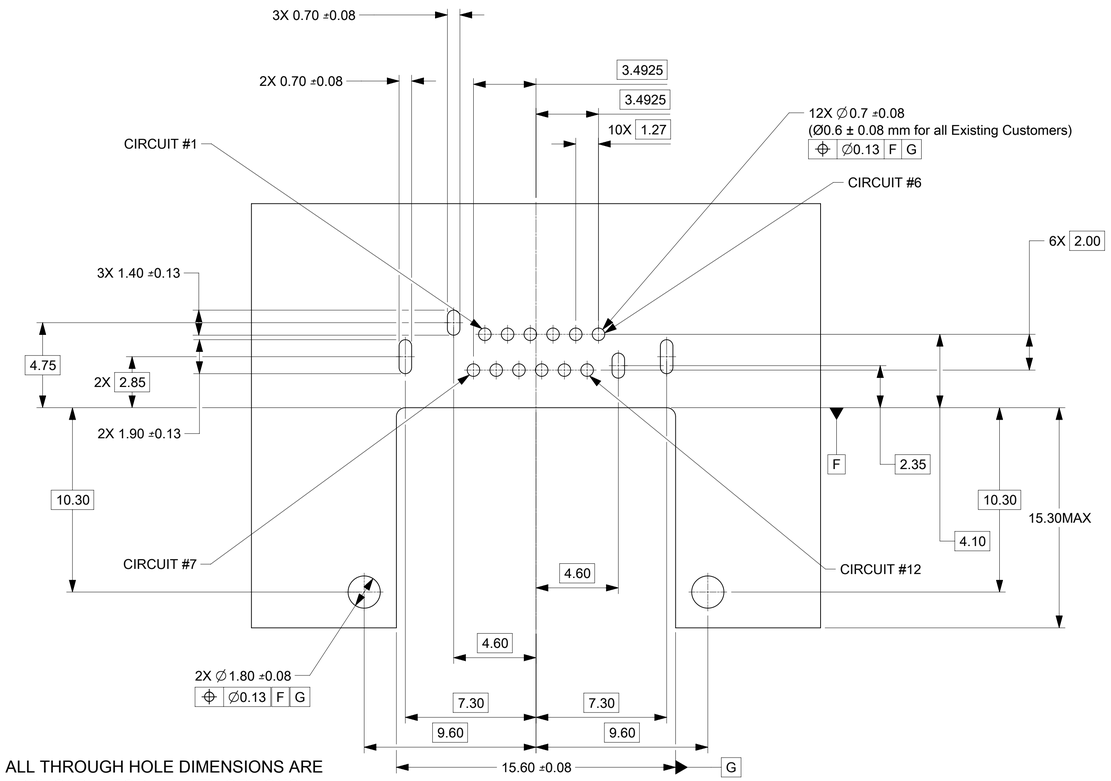
PCB CLEAROUT REGIONS



HEADER-TO-MODULE INTERFACE REQUIREMENTS

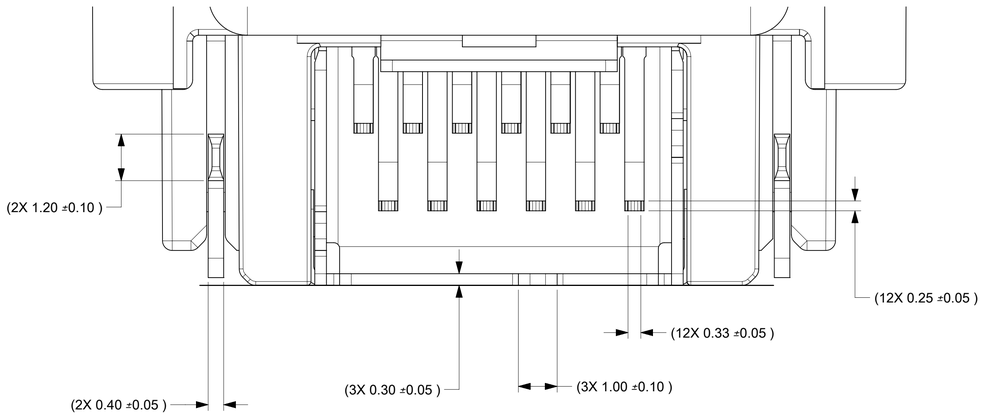


RECOMMENDED PCB LAYOUT - HEADER SIDE PCB



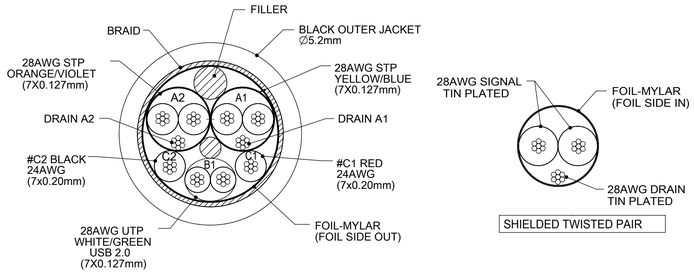
ALL THROUGH HOLE DIMENSIONS ARE
APPLICABLE FOR ALL KEY OPTIONS

SOLDER TAILS SIZE
FOR REFERENCE ONLY



DETAIL G
SCALE 13:1

SHEET DESCRIPTION
STANDARD WIRING DIAGRAM



CABLE CONSTRUCTION
USB 3.0 CABLE AWG28/24

WIRING DIAGRAM FOR USB 3.0 CABLE					
12CKT (END 1)			12CKT (END 2)		
SIGNAL NAME	CONTACT #	WIRE COLORS	WIRE COLORS	CONTACT #	SIGNAL NAME
GND4	1	DRAIN A1	DRAIN A2	1	GND5
USB3_TXN	2	BLUE	VIOLET	2	USB3_RXN
USB3_TXP	3	YELLOW	ORANGE	3	USB3_RXP
GND5	4	DRAIN A2	DRAIN A1	4	GND4
USB3_RXN	5	VIOLET	BLUE	5	USB3_TXN
USB3_RXP	6	ORANGE	YELLOW	6	USB3_TXP
FRONT_USB_EN	7	RED	RED	7	FRONT_USB_EN
NO CONNECT	8	--	--	8	NO CONNECT
USB_DN	9	WHITE	WHITE	9	USB_DN
USB_DP	10	GREEN	GREEN	10	USB_DP
NO CONNECT	11	--	--	11	NO CONNECT
POWER_GND	12	BLACK	BLACK	12	POWER_GND
BRAID TO SHIELD	SHIELD	BRAID TO SHIELD		SHIELD	BRAID TO SHIELD

CABLE CONSTRUCTION
4-PAIR LVDS

WIRING DIAGRAM FOR 4-PAIR LVDS CABLE					
12CKT (END 1)			12CKT (END 2)		
SIGNAL NAME	CONTACT	WIRE COLORS	WIRE COLORS	CONTACT	SIGNAL NAME
PAIR DRAIN C	1	DRAIN C	DRAIN C	1	PAIR DRAIN C
TPC+	2	NATURAL W/ GREEN STRIPE	NATURAL W/ GREEN STRIPE	2	TPC+
TPC -	3	NATURAL W/ YELLOW STRIPE	NATURAL W/ YELLOW STRIPE	3	TPC -
PAIR DRAIN A	4	DRAIN A	DRAIN A	4	PAIR DRAIN A
TPA +	5	NATURAL	NATURAL	5	TPA +
TPA -	6	NATURAL W/ BLUE STRIPE	NATURAL W/ BLUE STRIPE	6	TPA -
TPD +	7	NATURAL W/ ORANGE STRIPE	NATURAL W/ ORANGE STRIPE	7	TPD +
TPD -	8	NATURAL W/ VIOLET STRIPE	NATURAL W/ VIOLET STRIPE	8	TPD -
PAIR DRAIN D	9	DRAIN D	DRAIN D	9	PAIR DRAIN D
TPB +	10	NATURAL W/ BLACK STRIPE	NATURAL W/ BLACK STRIPE	10	TPB +
TPB -	11	NATURAL W/ RED STRIPE	NATURAL W/ RED STRIPE	11	TPB -
PAIR DRAIN B	12	DRAIN B	DRAIN B	12	PAIR DRAIN B
CABLE BRAID	SHIELD	BRAID TO SHIELD		SHIELD	CABLE BRAID

CABLE CONSTRUCTION
2-PAIR STP HIGH BANDWIDTH 28AWG CABLE

WIRING DIAGRAM FOR HBW LVDS 2-PAIR CABLE					
12CKT (END 1)			12CKT (END 2)		
SIGNAL NAME	CONTACT	WIRE COLORS	WIRE COLORS	CONTACT	SIGNAL NAME
LVDS A DRAIN WIRE	1	DRAIN A	DRAIN A	1	LVDS A DRAIN WIRE
LVDS A SIGNAL (+)	2	NATURAL W/ BLUE STRIPE	NATURAL W/ BLUE STRIPE	2	LVDS A SIGNAL (+)
LVDS A SIGNAL (-)	3	NATURAL	NATURAL	3	LVDS A SIGNAL (-)
LVDS B DRAIN WIRE	4	DRAIN B	DRAIN B	4	LVDS B DRAIN WIRE
LVDS B SIGNAL (+)	5	NATURAL W/ RED STRIPE	NATURAL W/ RED STRIPE	5	LVDS B SIGNAL (+)
LVDS B SIGNAL (-)	6	NATURAL W/ BLACK STRIPE	NATURAL W/ BLACK STRIPE	6	LVDS B SIGNAL (-)
NO CONNECT	7	--	--	7	NO CONNECT
NO CONNECT	8	--	--	8	NO CONNECT
NO CONNECT	9	--	--	9	NO CONNECT
NO CONNECT	10	--	--	10	NO CONNECT
NO CONNECT	11	--	--	11	NO CONNECT
NO CONNECT	12	--	--	12	NO CONNECT
CABLE BRAID	SHIELD	BRAID TO SHIELD		SHIELD	CABLE BRAID

NOTES :

1. WIRING DIAGRAMS ARE STANDARD AS SHOWN AND CANNOT BE CUSTOMIZED.
2. HEADERS AND PCB'S NEED TO BE PINNED OUT ACCORDING TO THE STANDARD WIRING DIAGRAM TO WORK WITH MATING CABLES ASSEMBLIES.
3. 12CKT HEADER WILL MATE ONLY WITH 12CKT CABLE ASSEMBLY SERIES 225772231X, 225772531X AND 225772631X.