

DESIGNED AND DIMENSIONED IN MILLIMETERS[INCHES]  
ALL DIMENSIONS REFERENCE EXCEPT AS SHOWN

DO NOT SCALE FROM THIS PRINT

**THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING**

LL110-XXXX-XXXXXX-XXXX-X-XX

CABLE CALLOUT  
LL110: MWC-LL110-FAA1-0

END 1 CONNECTOR  
(SEE TABLE 2, SHT 2)

END 2 CONNECTOR  
(SEE TABLE 2, SHT 2)

OVERALL ASSEMBLY LENGTH (OAL)  
XXXX (MILLIMETERS)  
(0100 MIN)  
(SEE NOTE 7)

NO. OF PHASE MATCHING CABLES  
-XX: (XX CABLE FOR THIS PART NUMBER)  
(XX CAN BE 02 TO 16)  
-BLANK: 1 CABLE FOR THIS PART NUMBER, ONLY AVAILABLE WITH NO PHASE MATCHING OPTION

PHASE MATCHING SPEC (RANGE)  
-1: 1 PICO-SECOND  
-2: 2 PICO-SECONDS  
-5: 5 PICO-SECONDS  
-BLANK: NO PHASE MATCHING

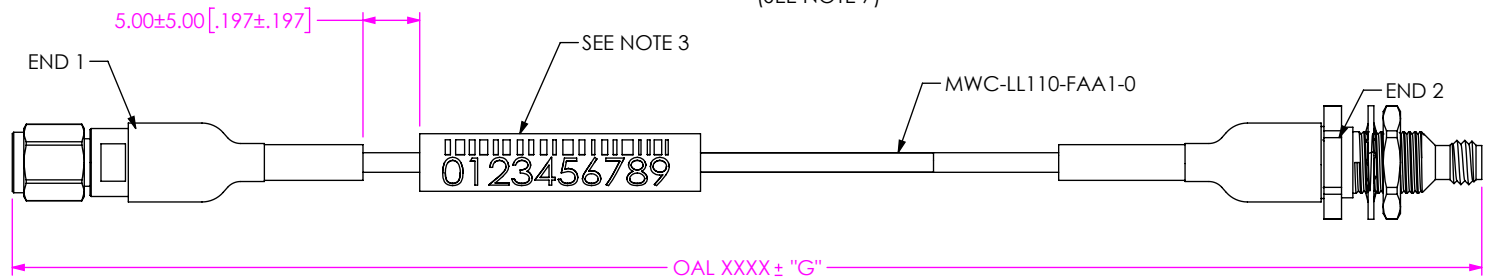


FIG 1  
LL110-A-10SP-10BJ-XXXX-X-XX SHOWN  
(PROTECTIVE CAPS NOT SHOWN FOR CLARITY)

TABLE 1	
OVERALL LENGTH	"G"
0100-0300 [5.98-11.81]	+5.0 [.20] / -0.0 [.00]
0301-1500 [11.85-59.01]	+12.0 [.47] / -0.0 [.00]
1501-3000 [59.09-118.11]	+25.0 [.98] / -0.0 [.00]
3001-7500 [118.15-295.28]	+50.0 [1.97] / -0.0 [.00]
7501-9999 [295.31-393.67]	+1% / -0.0 [.00]

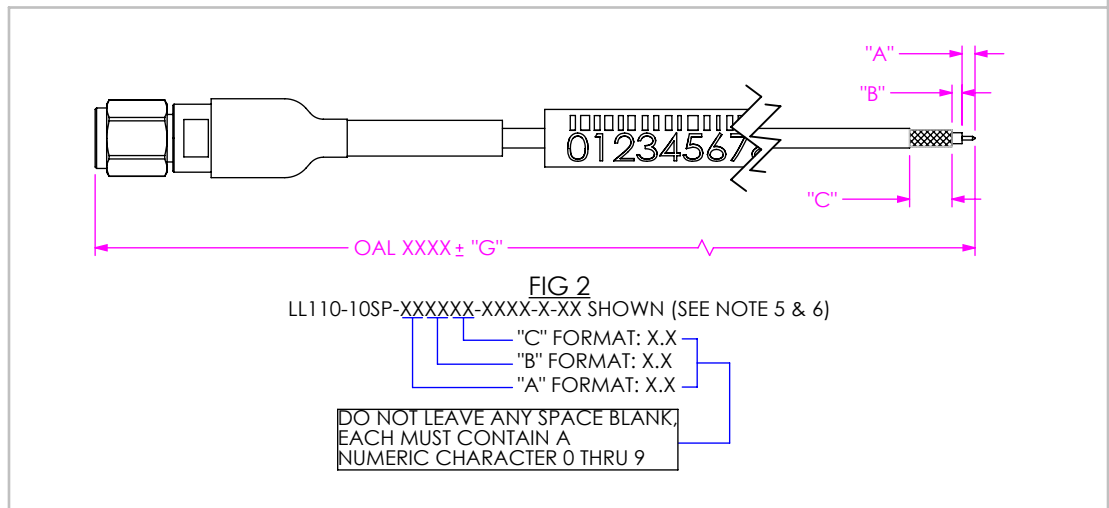


FIG 2  
LL110-10SP-XXXXXX-XXXX-X-XX SHOWN (SEE NOTE 5 & 6)

"C" FORMAT: X.X  
"B" FORMAT: X.X  
"A" FORMAT: X.X

NOTES:

- CONNECTORS TO BE ORIENTED ACCORDING TO CO-RF-WI-3048-M.
- CABLE ASSEMBLY TO HAVE PROTECTIVE CAP ASSEMBLED ON EACH END AND TO BE INDIVIDUALLY PACKAGED IN ESD BAG.
- ASSEMBLY TO BE 100% TESTED FOR RETURN LOSS AND INSERTION LOSS, LABEL EACH INDIVIDUAL CABLE ASSEMBLY WITH 1 LABEL-SER-02. RETURN LOSS SPECIFICATION IS EQUAL TO THE HIGHEST END OPTION LIMIT (SEE TABLE 3).
- CABLE LENGTHS LONGER THAN 1000 MILLIMETERS ARE NOT SUPPORTED BY S.I. TEST DATA.
- DIM "A", "B", AND "C" HAVE A MINIMUM VALUE OF 0.0mm & A MAXIMUM VALUE OF 9.9mm[.39"].
- FOR STRIPPED AND TINNED OPTION, BOTH THE CENTER CONDUCTOR & SHIELD ARE TINNED.
- USE 3 DIGITS XXX (MILLIMETERS) FOR PHASE MATCHING OPTION. 999MM MAX LENGTH

**PROPRIETARY NOTE**

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**MATERIAL:** DO NOT SCALE DRAWING

CENTER CONTACT: -10SP/-10BJ: BeCu SHEET SCALE: 3:2

OUTER CONTACT: -10SP/-10BJ: STAINLESS STEEL

INSULATORS: -10SP/-10BJ: PCTFE(EKL-F & ULTEM)

**samtec**

520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail info@SAMTEC.com code 55322

DESCRIPTION: LL110 CABLE ASSEMBLY

DWG. NO. LL110-XXXX-XXXXXX-XXXX-X-XX

BY: WILLY Y 3/1/2024 SHEET 1 OF 3

TABLE 2							
END OPTION	SERIES	GENDER	FINISH			CONNECTOR KIT P/N	FIGURE
			CENTER CONTACT	OUTER CONTACT	SOLDER FERRULE		
-10SP	1.0 MM	PLUG	50µ" GOLD	PASSIVATED	10µ" GOLD	PRF10-P-C-VP-110B-SS	SHT 3, FIG 3
-10BJ	1.0 MM	BULKHEAD JACK	50µ" GOLD	PASSIVATED	10µ" GOLD	PRF10-JC-VP-110B-BS	SHT 3, FIG 4
**SING	SINGLE ENDED	-	-		-	-	-
**XXXXX	STRIPPED & TINNED	-	-		-	-	SHT 1, FIG 2


\*\*= END 2 OPTION ONLY

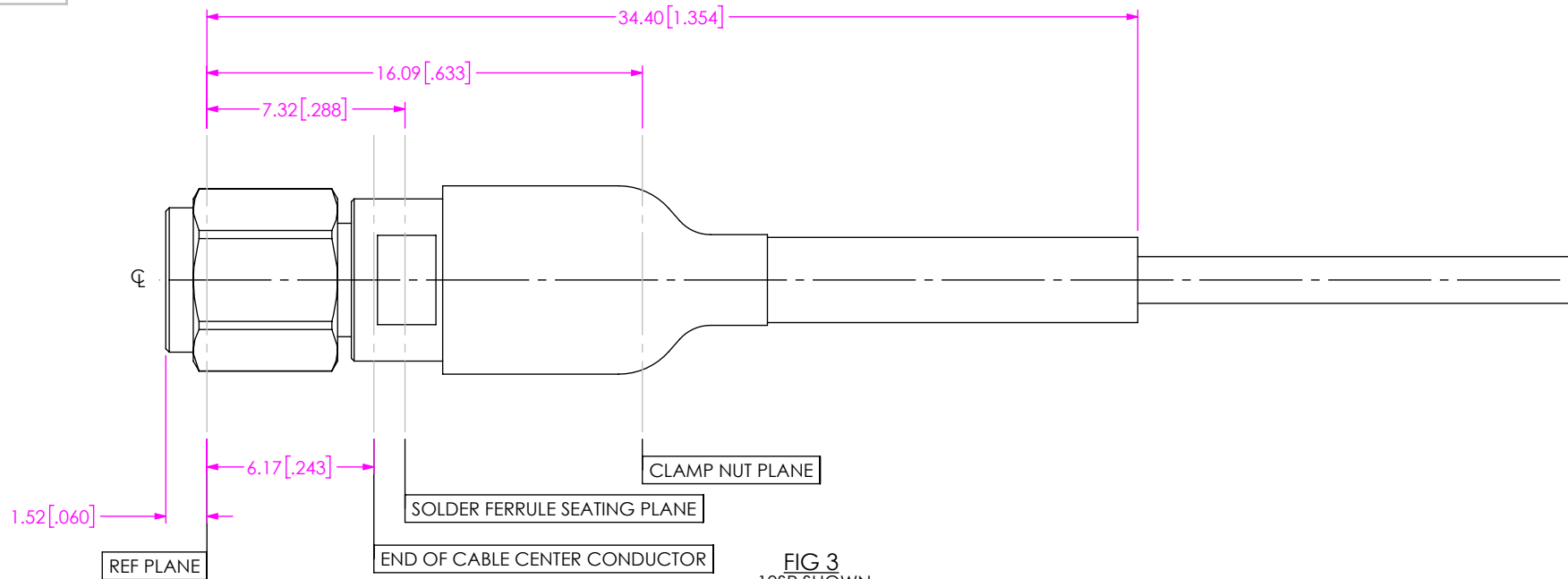
\*= NOT RELEASED

TABLE 3					
END OPTION	MAXIMUM VSWR (PER END)	MAXIMUM RETURN LOSS (PER END)	MAXIMUM INSERTION LOSS (IL) (PER END)	FREQUENCY	PROTECTIVE CAP COLOR
-10SP	1.183:1	21.53dB	0.03+0.045*SQRT(Freq[Ghz])	DC TO 90 GHz	WHITE
	1.225:1	19.90dB		90 TO 110 GHz	
-10BJ	1.183:1	21.53dB	0.03+0.045*SQRT(Freq[Ghz])	DC TO 90 GHz	WHITE
	1.225:1	19.90dB		90 TO 110 GHz	

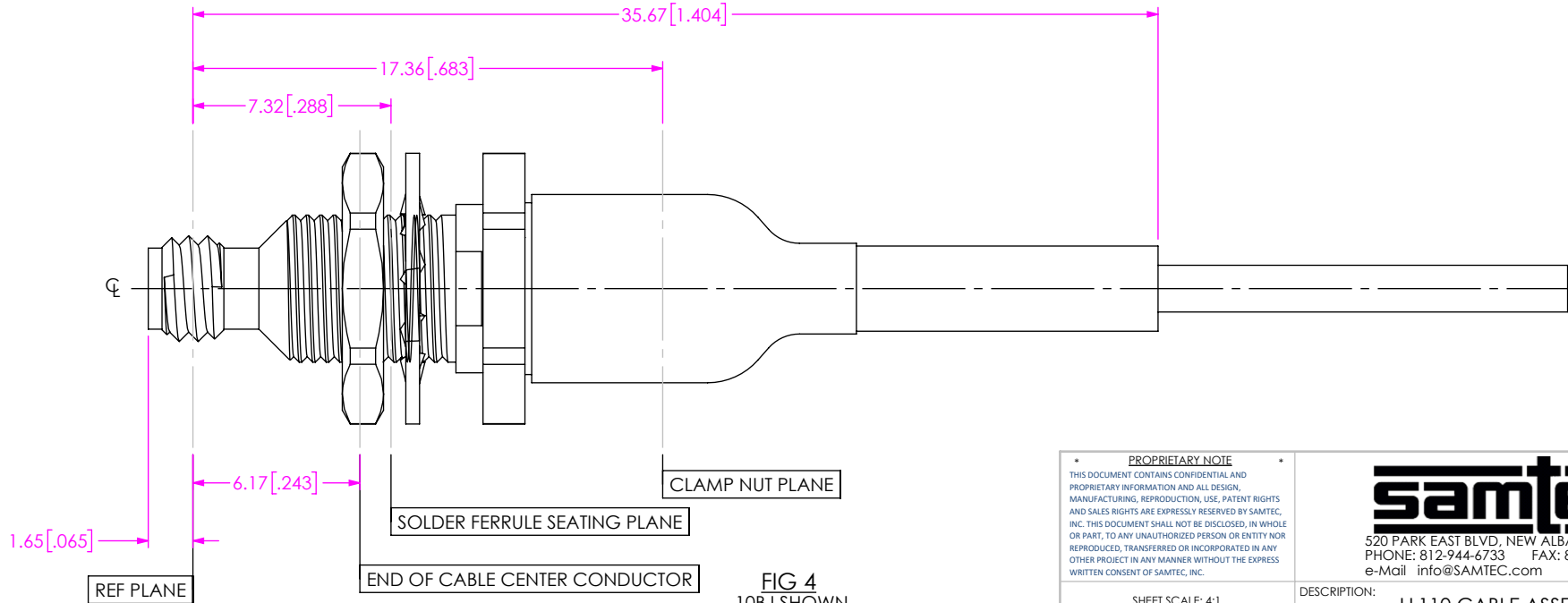
IL Max [dB] for Cable Assembly :

$$= \{31.4 * \text{SQRT}(\text{Freq}[\text{GHz}]) + 0.59 * \text{Freq}[\text{GHz}] + 0.0000001 * \text{Freq}[\text{GHz}]^4\} * \text{OAL}[\text{mm}] / 30480 + \text{End Option IL\#1}\{\text{See Table 3}\} + \text{End Option IL\#2}\{\text{See Table 3}\}$$

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<p>SHEET SCALE: 3:2 DO NOT SCALE DRAWING</p>	<p>DESCRIPTION: LL110 CABLE ASSEMBLY</p> <p>DWG. NO. LL110-XXXX-XXXXXX-XXXX-X-XX</p>
<p>BY: WILLY Y 3/1/2024 SHEET 2 OF 3</p>	



**FIG 3**  
-10SP SHOWN  
(PROTECTIVE CAP NOT SHOWN FOR CLARITY)



**FIG 4**  
-10BJ SHOWN  
(PROTECTIVE CAP NOT SHOWN FOR CLARITY)

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SHEET SCALE: 4:1  
DO NOT SCALE DRAWING



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