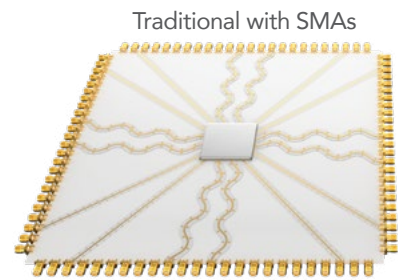


## HIGH-PERFORMANCE TEST ASSEMBLIES TO 90 GHz

### FEATURES & BENEFITS

The Bulls Eye® high-performance test assembly features a high-density, space-saving design that enables smaller evaluation boards and shorter trace lengths in test and measurement applications to 90 GHz.

- Compression mounts to the board for placement directly adjacent to the SerDes being characterized
- Solderless design improves cost and is easy to use within a lab setting
- End 2 connection to instrumentation: 1.00 mm, 1.35 mm, 1.85 mm, 2.40 mm or 2.92 mm
- High-density, space-saving design
- Single row or double row
- Complete list of applications: SerDes characterization, clock/data recovery (CDR), mmWave radar, automated test equipment, FR2 5G networks



Bulls Eye®



DC TO  
**90**  
GHz

PAM 4  
**224**  
G b p s

### HIGH-DENSITY & SPACE-SAVING

Enables smaller evaluation boards and shorter trace lengths.



### PRODUCT FAMILY CROSS REFERENCE GUIDE

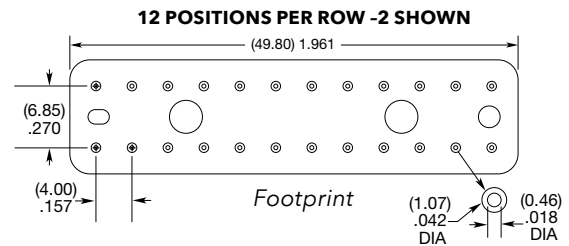
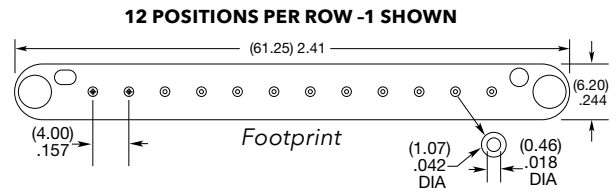
ASSEMBLY	90 GHz	70 GHz	50 GHz	40 GHz	TEST ASSEMBLY	SERDES CHARACTERIZATION
Block Bottom View					BE90A, 90 GHz	<p>PAM 4</p> <p><b>224</b> G b p s</p>
End 2 Connector	1.00 & 1.35 mm	1.85 mm	2.40 mm	2.92 mm		
Samtec Series	BE90A	BE70A	BE40A			
Cable Type	.047	.086	MWC-2350CU-01		BE70A, 70 GHz	<p>PAM 4</p> <p><b>112</b> G b p s</p>
Cable Management	Yes					
PCB Transition	Microstrip/CPW or Stripline					
Bulls Eye® Connector Design	Spring-Loaded Contact; 360° Grounding		Pogo-Pin for Signal & Ground			
No. of Rows	Single or Double		Double		BE40A, 50 GHz	<p>PAM 4</p> <p><b>56</b> G b p s</p>
No. of Positions	<b>1x:</b> 2, 4, 8, 12 <b>2x:</b> 4, 8, 12, 16	<b>1x:</b> 2, 4, 8, 12 <b>2x:</b> 3, 4, 6, 8, 10, 12, 14, 16	<b>2x:</b> 3, 4, 6, 8, 10, 12, 14, 16			
Impedance	50 Ω					
FPGA Development Kit	-		Xilinx® Zynq® UltraScale+™ RFSoc ZCU1275			
SI Evaluation Kit	-	70 GHz: REF-213864-01	50 GHz: REF-213497-01			

## 70 GHz ASSEMBLIES

BE70A	TRANSMISSION TYPE	END 2	PHASE MATCHING	ROW OPTION	POSITIONS PER ROW	OVERALL LENGTH
	<b>-S</b> = Stripline  <b>-M</b> = Microstrip	<b>-18SJ</b> = 1.85 mm Straight Jack  <b>-18SP</b> = 1.85 mm Straight Plug	<b>-2</b> = 2.0 Pico-second  <b>-5</b> = 5.0 Pico-second  <b>-N</b> = No Phase Matching	<b>-1</b> = Single Row (-02, -04, -08 & -12 positions only)  <b>-2</b> = Double Row (-03 through -16 positions only)	<b>-02,</b> <b>-03, -04,</b> <b>-06, -08,</b> <b>-10, -12,</b> <b>-14, -16</b>	<b>"XXXX"</b> = Overall length in millimeters  -0152 (152 mm) 5.984" minimum

DC TO **70** GHz  
PAM 4 **112** Gbps

**BE70A**  
End 2 Connectors:  
1.85 mm (70 GHz)



## 50 GHz & 40 GHz ASSEMBLIES

BE40A	TRANSMISSION TYPE	END 2	PHASE MATCHING	2	POSITIONS PER ROW	OVERALL LENGTH
	<b>-S</b> = Stripline  <b>-M</b> = Microstrip	<b>-92SJ</b> = 40 GHz, 2.92 mm Straight Jack  <b>-24SJ</b> = 50 GHz, 2.40 mm Straight Jack  <b>-92SP</b> = 40 GHz, 2.92 mm Straight Plug  <b>-24SP</b> = 50 GHz, 2.40 mm Straight Plug	<b>-2</b> = 2.0 Pico-second  <b>-5</b> = 5.0 Pico-second  <b>-N</b> = No Phase Matching		<b>-03, -04,</b> <b>-06, -08,</b> <b>-10, -12,</b> <b>-14, -16</b>	<b>"XXXX"</b> = Overall length in millimeters  -0152 (152 mm) 5.984" minimum

DC TO **50** GHz  
PAM 4 **56** Gbps

**BE40A**  
End 2 Connectors:  
2.40 mm (50 GHz)  
2.92 mm (40 GHz)

