

GDDR5 Interposers

GDDR5 170 Ball Socketed Interposer



Key Features

- GDDR5
- Patented Socket Design
- 170-ball
- x16/x32
- High fidelity
- Enables oscilloscope probing

Applications

- GDDR5
 - Memory validation and debug
 - Monitoring bus traffic
 - Bus traffic measurement
 - Analog insight

Socketed Interposer Concept

Target Socketed interposers consists of a target socket, an interposer, and - optionally - a component socket. The target socket has a standard ball-grid-array (BGA) interface which is used to install the socket on to the target. The target socket has a removable socket interface to which the interposer can be mechanically attached and re-attached by using a simple tool and your finger to press-fit the parts together.

The target socket's design forces the interposer up and over adjacent components, allowing this solution to fit in a wide variety of mechanically tight applications.

If an optional component socket is provided, this socket will reside on the interposer and provide a mechanically constrained and reusable interface for attaching standard BGA components. If the optional component socket is not provided, the standard BGA component is attached to the interposer using standard BGA component attachment techniques. Lastly, when testing is completed, the interposer can be removed and the BGA component may be press fit directly the custom socket on the target essentially removing the affect of the interposer in the target.

Simulation & De-Embedding

S-Parameters are included for target simulation and the creation of de-embedding filters for use with an oscilloscope.

Attachment Service

Nexus Technology's expert attachment service provides a ready-to-go test solution customized to your application. We will attach the interposer and any additional accessories to your application's target. We can also power-on and test your target to confirm functionality. Please contact us for more information.



Figure 1 Direct Attach interposer installed under a memory component

Mechanical Outline

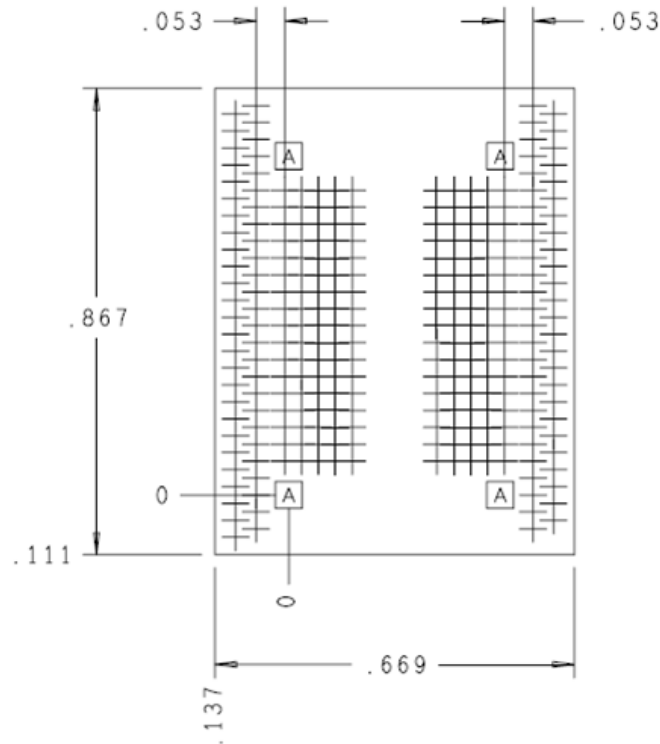


Figure 2 GDDR5 170 Ball Oscilloscope Socketed Interposer Mechanical Dimensions

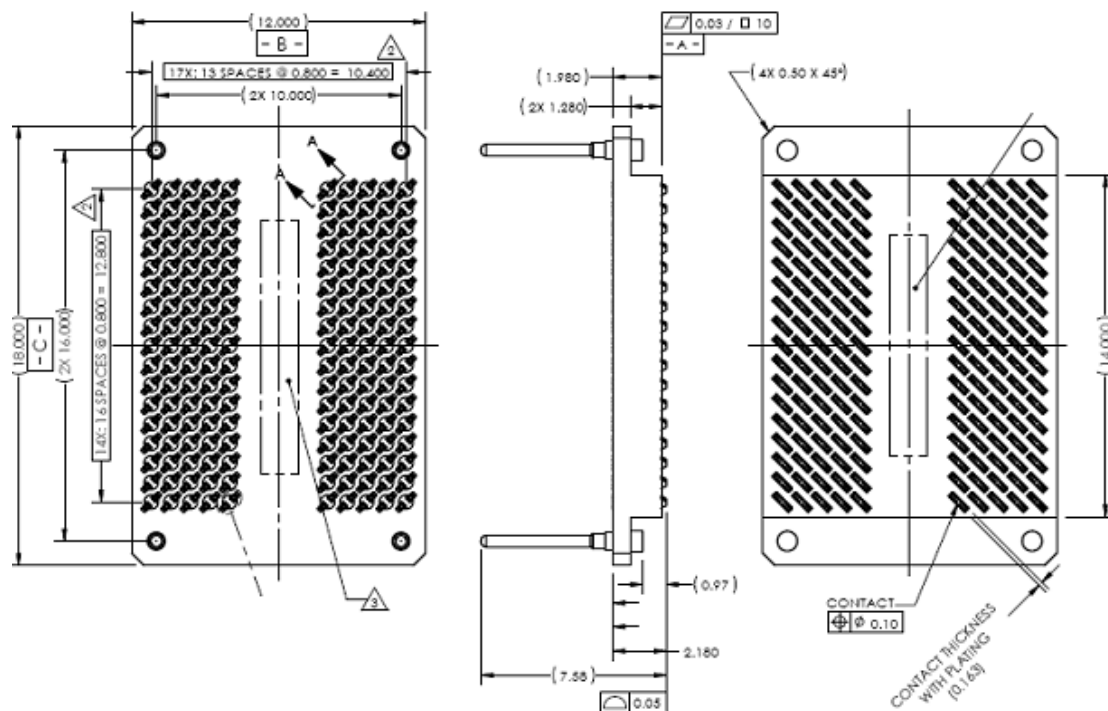


Figure 3 GDDR5 170 Ball Target Socket Mechanical Dimensions

Note: All measurements listed are in inches

Probe Point Signal List

TEST Point	Signal MF=1	Signal MF=0	TEST Point	Signal MF=1	Signal MF=0	TEST Point	Signal MF=1	Signal MF=0
1	GND	GND	35	GND	GND	69	A9-1	A11-A6
2	DQ23	DQ15	1	BA2-A4	BA0-A2	70	GND	GND
3	DQ16	DQ8	37	SEN	SEN	71	A10-0	A8-A7
4	GND	GND	38	GND	GND	72	VDDQD1	VDDQD1
5	DQ19	DQ11	39	BA3-A3	BA1-A5	73	GND	GND
6	DQ20	DQ12	40	BA0-A2	BA2-A4	74	DQ3	DQ27
7	GND	GND	41	GND	GND	75	EDC0	EDC3
8	DQ21	DQ13	42	DQ14	DQ22	76	GND	GND
9	BA1-A5	BA3-A3	43	DQ12	DQ20	77	WCK01	WCK23
10	GND	GND	44	GND	GND	78	WCK01#	WCK23#
11	CK	CK	45	DBI1#	DBI2#	79	GND	GND
12	CK#	CK#	46	EDC1	EDC2	80	DQ26	DQ2
13	GND	GND	47	GND	GND	81	DQ24	DQ0
14	CS#	WE#	48	DQ11	DQ19	82	GND	GND
15	DQ15	DQ23	49	VSSQC11	VSSQC11	83	DQ31	DQ7
16	GND	GND	50	GND	GND	84	DQ30	DQ6
17	DQ13	DQ21	51	VREFD1	VREFD1	85	GND	GND
18	VDD	VDD	52	DQ10	DQ18	86	DQ28	DQ4
19	GND	GND	53	WCK23#	WCK01#	87	DQ29	DQ5
20	ZQ	ZQ	54	WCK23	WCK01	88	GND	GND
21	DQ9	DQ17	55	GND	GND	89	ABI#	ABI#
22	GND	GND	56	DQ27	DQ3	90	A11-6	A9-A1
23	DQ8	DQ16	57	DQ25	DQ1	91	GND	GND
24	DQ2	DQ26	58	GND	GND	92	CKE#	CKE#
25	GND	GND	59	EDC3	EDC0	93	DQ7	DQ31
26	DQ0	DQ24	60	DBI3#	DBI0#	94	GND	GND
27	DQ18	DQ10	61	GND	GND	95	MF	MF
28	EDC2	EDC1	62	A8-7	A10-A0	96	DQ5	DQ29
29	GND	GND	63	CAS#	RAS#	97	GND	GND
30	DBI2#	DBI1#	64	GND	GND	98	DBI0#	DBI3#
31	DQ17	DQ9	65	A12	A12	99	DQ4	DQ28
32	GND	GND	66	RESET#	RESET#	100	GND	GND
33	WE#	CS#	67	GND	GND	101	DQ1	DQ25
34	DQ22	DQ14	68	RAS#	CAS#	102	DQ6	DQ30
						103	GND	GND

Probe Point Locations

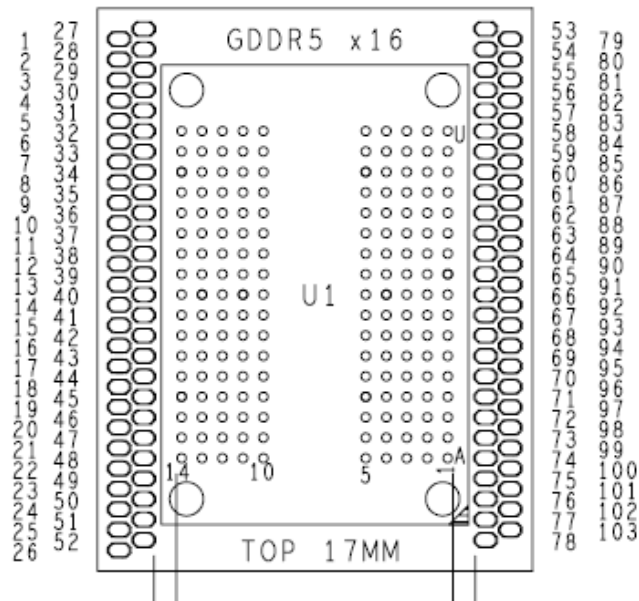


Figure 4 GDDR5 Oscilloscope Socketed Interposer Probe Point Locations

Product Configuration Table

Nomenclature	Memory Component Socket
NEX-GDDR5MP170BSC	No
NEX-GDDR5MP170BSCSK	Yes

Available Accessories

	Desc.	Quantity	Nomenclature
Interposer Socket	Patented interposer socket. Solder balls included	1	NEX-GDDR5170BGASKBA

Attachment Service Options

Attachment Service Level	
Attachment Service	Contact us for more information

Contact Information

For more information, please contact us by telephone, email or mail as listed below. Normal business hours are 9:00 - 5:00 EDT/EST.

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