Quick Reference Guide
LCD Coaxial Embedded Display Interface
(LCEDI / LCEDI SR)

TE Connectivity introduces the next generation LCD Coaxial Embedded Display Interface (LCEDI) family of connectors designed to provide exceptional electrical performance in both low voltage, differential signaling (LVDS) and embedded DisplayPort (eDP) applications. This family of connectors was recently selected by VESA (Video Electronics Standard Association) as the global standard connector for a LED backlight wide (16x9) panel interface. Its ultra-low profile mating configuration (1.1mm height) makes it ideal for the slim LED backlight LCD panel of advanced notebook personal computers.

TE Connectivity's LCEDI connector family accommodates consistent digital data transmission through one, two or four DisplayPort standard lanes at a reduced bit rate of 1.62 Gbps or a high bit rate of 2.7 Gbps through each lane, and even faster data rates over different wiring schemes. The product family offers high density for notebook PC applications, minimizing space and accommodating future pin out for LED backlight technology.

FEATURES
- Twin leaf contact structure
- Mixed cable use
  - Micro coax (twin coax AWG#40 or smaller)
  - Discrete wire (AWG #32 or smaller)
- Friction lock mechanism at shell when mated
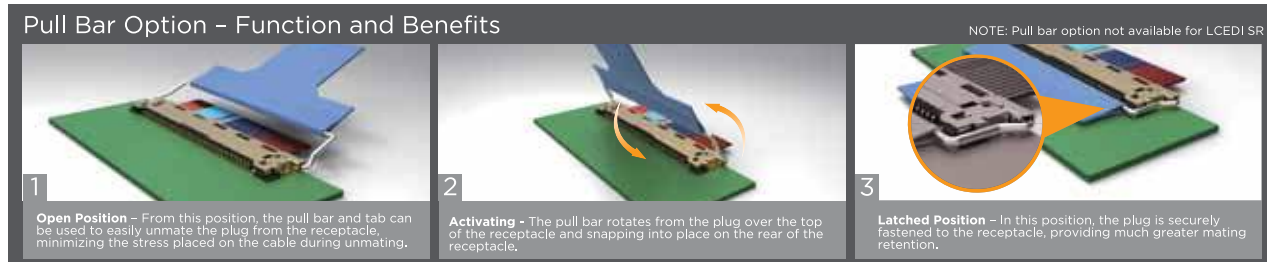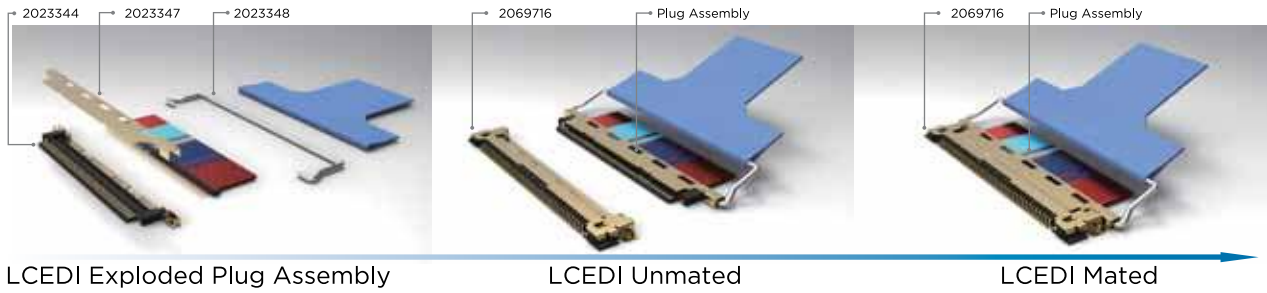
BENEFITS
- Fully intermateable with I-PEX CABLINE®-VS series. (same appearance and performance)
- User friendly design
- Full lock mechanism with pull bar (optional)

APPLICATIONS
- DVD/Blu-ray players
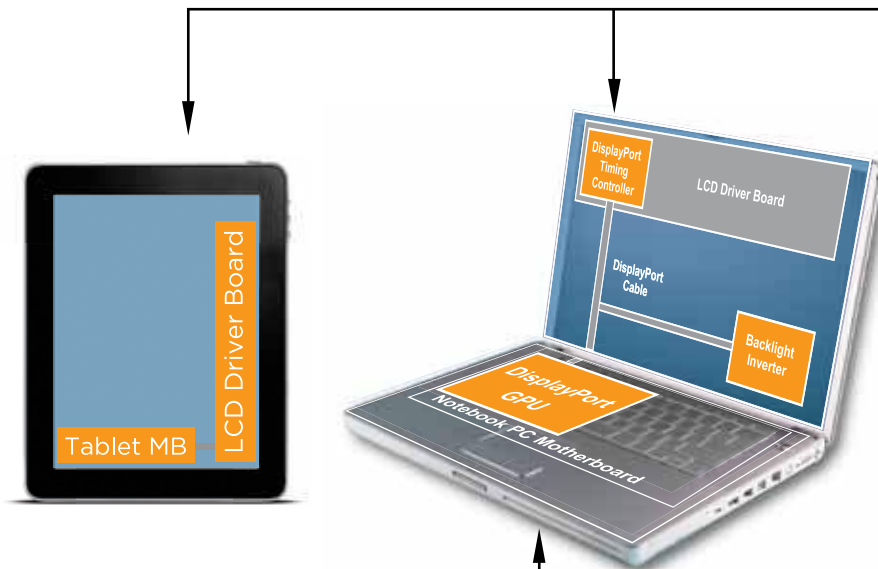- Render massive 3D imaging
- Slim LED backlight LCD panel

TE connectivity

Application

LCEDI

2023344   2023347   2023348

2069716   Plug Assembly

2069716   Plug Assembly

LCEDI Exploded Plug Assembly   LCEDI Unmated   LCEDI Mated

Pull Bar Option – Function and Benefits   NOTE: Pull bar option not available for LCEDI SR

1 **Open Position** – From this position, the pull bar and tab can be used to easily unmate the plug from the receptacle, minimizing the stress placed on the cable during unmating.

2 **Activating -** The pull bar rotates from the plug over the top of the receptacle and snapping into place on the rear of the receptacle.

3 **Latched Position** – In this position, the plug is securely fastened to the receptacle, providing much greater mating retention.

For a complete LCEDI mated pair you will need:	
Receptacle-With or Without Datum Mark (2069716)	
--MATES WITH--	*
Plug Housing Assembly (2023344)	
Upper Shell-With or Without Datum Mark (2023347)	
Pull Bar-Optional (2023348)	

* TE Connectivity supports both 30 and 40 position versions

For a complete LCEDI SR mated pair you will need:	
Interface Receptacle (2023308)	
--MATES WITH--	*
Interface Plug (2023314)	
Upper Shell (2023317) (2023351)	
Lower Shell (2023318) (2023352)	

* The height of a mated LCEDI SR pair is 4.3mm(30P and 40P)or9.35mm (44P)

Tablet MB   LCD Driver Board

DisplayPort Timing Controller   LCD Driver Board
DisplayPort Cable
Backlight Inverter
DisplayPort GPU
Notebook PC Motherboard

LCEDI SR

2023318   2023314   2023317

2023308   Plug Assembly

2023308   Plug Assembly

LCEDI SR Exploded Plug Assembly   LCEDI SR Unmated   LCEDI SR Mated
The height of mated LCEDI SR pair is 4.3mm (30P and 40P) or 9.35mm(44P)

	PN	Category	Commodity	POS	Description	Components Required For Mated Pair		Mating Height
	8-2069716-3	LCEDI	Receptacle	40	Receptacle Without Datum Mark (Y ver)		Required - With or Without Datum Mark	1.1 mm
	5-2069716-3	LCEDI	Receptacle	40	Receptacle With Datum Mark			
	2023344-3	LCEDI	Plug	40	Plug Housing Assembly		Required	
	2023347-3	LCEDI	Plug	40	Upper Shell Without Datum Mark		Required - With or Without Datum Mark	
	5-2023347-3	LCEDI	Plug	40	Upper Shell With Datum Mark			
	2023348-3	LCEDI	Plug	40	Pull Bar		Optional	
	8-2069716-2	LCEDI	Receptacle	30	Receptacle Without Datum Mark		Required - With or Without Datum Mark	
	5-2069716-2	LCEDI	Receptacle	30	Receptacle With Datum Mark			
	2023344-2	LCEDI	Plug	30	Plug Housing Assembly		Required	
	2023347-2	LCEDI	Plug	30	Upper Shell Without Datum Mark		Required - With or Without Datum Mark	
	5-2023347-2	LCEDI	Plug	30	Upper Shell With Datum Mark			
	2023348-2	LCEDI	Plug	30	Pull Bar		Optional	
	2023488-1	LCEDI SR	Receptacle	44	Board Side Receptacle 9.35H		Required	9.35 mm
	2023489-1	LCEDI SR	Plug	44	Cable Side Plug		Required	
	2023517-1	LCEDI SR	Plug	44	Upper Shell		Required	
	2023308-3	LCEDI SR	Receptacle	40	Interface Receptacle 4.3H		Required	4.3 mm
	2023314-3	LCEDI SR	Plug	40	Interface Plug 4.3H		Required	
	2023317-1	LCEDI SR	Plug	40	Upper Shell		Required	
	2023318-1	LCEDI SR	Plug	40	Lower Shell		Required	
	2023308-2	LCEDI SR	Receptacle	30	Interface Receptacle 4.3H		Required	4.3 mm
	2023314-2	LCEDI SR	Plug	30	Interface Plug 4.3H		Required	
	2023351-1	LCEDI SR	Plug	30	Upper Shell		Required	
	2023352-1	LCEDI SR	Plug	30	Lower Shell		Required	

Frequently asked questions

Question 1
How can I find supporting documentation?
Answer 1
You can find product information, presentations, electrical models, and product and application specifications at:
www.te.com/products/lcedi

Question 2
What components do I need to make up a complete LCEDI or LCEDI SR mated pair?
Answer 2
The charts to the left of the tablet PC on Page 2 feature the necessary components required for a complete LCEDI or LCEDI SR mated pair. The components mentioned in the charts are color-coded, and correspond to their appropriate component in the table on Page 3.

Question 3
What is the difference between LCEDI and LCEDI SR?
Answer 3
Both LCEDI and LCEDI SR support embedded DisplayPort (eDP) applications.
LCEDI is designed to be used on the LCD interface driver board (TCON). Its very low profile height makes it suitable for notebook display panels which are getting slimmer from generation to generation. It is also possible to use LCEDI in tablet PCs because LCEDI has a side mating operation as well as a very low profile height of 1.1mm. This low profile height also has a mated height of 1.1mm.

LCEDI SR is designed to be used on notebook PC system boards and allows top-down or vertical mating operation. Currently LCEDI SR offers a 4.3mm mating height with 30 or 40 position size options. It also has a 9.35mm mating height option available in 44 position with screw locks.

Question 4
What is the advantage of choosing a receptacle or an upper shell with a datum mark?
Answer 4
The datum mark is a small triangle shaped indicator marked on the receptacle's top shell as well as on the upper shell of the plug side assembly. These indicators allow the operator to align the plug and the receptacle connectors accurately during the PCB mounting process or mating.

Question 5
What wire or cable types are acceptable for use with LCEDI / LCEDI SR connectors?
Answer 5
LCEDI and LCEDI SR plugs are compatible with Micro-Coax, Micro-TwinAx (AWG#40 or smaller) and discrete wire (AWG#32 or smaller)

FOR MORE INFORMATION

TE Technical Support Center

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*as defined www.te.com/leadfree

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