Dual MIPI to DSI Converter Daughter Card User Guide

DUAL-MIPI-DSI-DC-UG-v1.1
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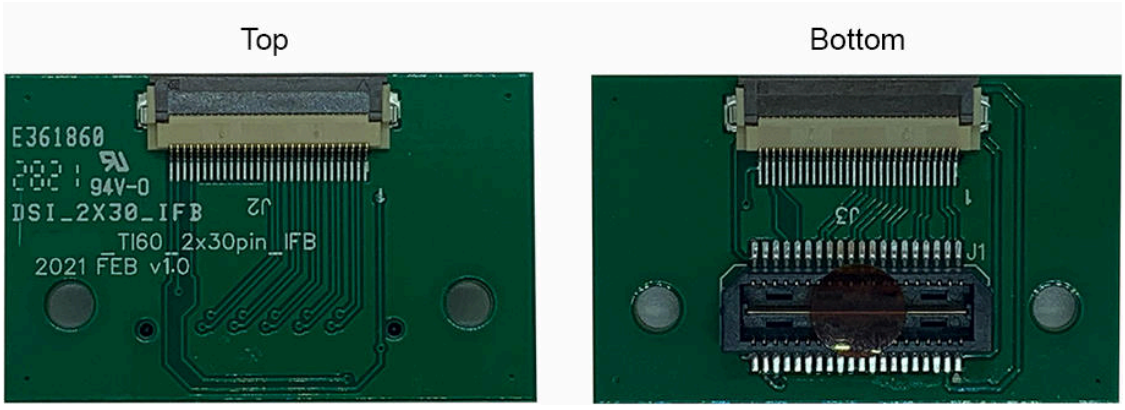
Contents

Introduction

The Dual MIPI to DSI Converter Daughter Card (part number: Elitestek_TI60_2X30_IFB) converts the MIPI signals from the development board to a DSI interface for the Mini-DSI Panel Connector Daughter Card.

Learn more: Refer to the **Dual MIPI to DSI Converter Daughter Card Schematics and BOM** for the part details and schematics.

Figure 1: Dual MIPI to DSI Converter Daughter Card



Warning: The board can be damaged without proper anti-static handling.

Supported Development Boards

You can use Dual MIPI to DSI Converter Daughter Card with:

- 钛金系列 Ti60 F225 Development Board

What's in the Box?

The Dual MIPI to DSI Converter Daughter Card includes:

- Dual MIPI to DSI Converter Daughter Card
- 2 standoffs
- 2 screws
- 2 nuts

Features

- Bridges 40-pin QSE connector on development board to two 30-pin FPC receptacles for Mini-DSI Panel Connector Daughter Card
- Power supplied from the development board; no external power required

Headers

Table 1: Dual MIPI to DSI Converter Daughter Card Headers

Reference Designator	Description
J1	40-pin QTE connector bringing MIPI signals, and power from the development board.
J2	30-pin flexible printed cable (FPC) receptacle for Mini-DSI Panel Connector Daughter Card
J3	30-pin flexible printed cable (FPC) receptacle for Mini-DSI Panel Connector Daughter Card

Header J1 (Development Board Connector)

J1 is a 40-pin QTE connector to connect the daughter card to one of the development board's MIPI connectors.

Table 2: J1 Pin Assignments

Pin Number	Pin Name	Description	Pin Number	Pin Name	Description
1	3V3	3.3 V supply	2	DP0_1	Differential MIPI lane 0 for J3
3	5V0	5.0V supply	4	DN0_1	Differential MIPI lane 0 for J3
5	GND	Ground	6	GND	Ground
7	DP3_0	Differential MIPI lane 3 for J2	8	DP1_1	Differential MIPI lane 1 for J3
9	DN3_0	Differential MIPI lane 3 for J2	10	DN1_1	Differential MIPI lane 1 for J3
11	GND	Ground	12	GND	Ground
13	DP2_0	Differential MIPI lane 2 for J2	14	CP0_1	MIPI clock lane for J3
15	DN2_0	Differential MIPI lane 2 for J2	16	CN0_1	MIPI clock lane for J3
17	GND	Ground	18	GND	Ground
19	CP0_0	MIPI clock lane for J2	20	DP2_1	Differential MIPI lane 2 for J3
21	CN0_0	MIPI clock lane for J2	22	DN2_1	Differential MIPI lane 2 for J3
23	GND	Ground	24	GND	Ground
25	DP1_0	Differential MIPI lane 1 for J2	26	DP3_1	Differential MIPI lane 3 for J3
27	DN1_0	Differential MIPI lane 1 for J2	28	DN3_1	Differential MIPI lane 3 for J3
29	GND	Ground	30	GND	Ground
31	DP0_0	Differential MIPI lane 0 for J2	32	SCL_1	Touch panel I^2C control for J2
33	DN0_0	Differential MIPI lane 0 for J2	34	SDA	Touch panel I^2C control
35	GND	Ground	36	GND	Ground
37	SCL_0	Touch panel I^2C control for J1	38	INT_0	Touch panel interrupt for J1
39	EN	+/-5.5 V DC/DC enable pin	40	INT_1	Touch panel interrupt for J2

Headers J2 and J3 (Mini-DSI Panel Connector Daughter Card)

J2 and J3 are 30-pin FPC receptacles for connecting to the Mini-DSI Panel Connector Daughter Card.

Table 3: J2 Pin Assignments

Pin Number	Pin Name	Description	Pin Number	Pin Name	Description
1	GND	Ground	2	DP0_0	Differential MIPI lane 0
3	DN0_0	Differential MIPI lane 0	4	GND	Ground
5	DP1_0	Differential MIPI lane 1	6	DN1_0	Differential MIPI lane 1
7	GND	Ground	8	CP0_0	MIPI clock lane
9	CN0_0	MIPI clock lane	10	GND	Ground
11	DP2_0	Differential MIPI lane 2	12	DN2_0	Differential MIPI lane 2
13	GND	Ground	14	DP3_0	Differential MIPI lane 3
15	DN3_0	Differential MIPI lane 3	16	GND	Ground
17	N.C	No connect	18	N.C	No connect
19	3V3	3.3 V supply	20	3V3	3.3 V supply
21	N.C	No connect	22	N.C	No connect
23	5V0	5.0 V supply	24	5V0	5.0 V supply
25	N.C	No connect	26	GND	Ground
27	SCL_0	Touch panel I^2C control	28	SDA	Touch panel I^2C control
29	INT_0	Touch panel interrupt	30	EN	+/-5.5 V DC/DC enable pin

Table 4: J3 Pin Assignments

Pin Number	Pin Name	Description	Pin Number	Pin Name	Description
1	GND	Ground	2	DP0_1	Differential MIPI lane 0
3	DN0_1	Differential MIPI lane 0	4	GND	Ground
5	DP1_1	Differential MIPI lane 1	6	DN1_1	Differential MIPI lane 1
7	GND	Ground	8	CP0_1	MIPI clock lane
9	CN0_1	MIPI clock lane	10	GND	Ground
11	DP2_1	Differential MIPI lane 2	12	DN2_1	Differential MIPI lane 2
13	GND	Ground	14	DP3_1	Differential MIPI lane 3
15	DN3_1	Differential MIPI lane 3	16	GND	Ground
17	N.C	No connect	18	N.C	No connect
19	3V3	3.3 V supply	20	3V3	3.3 V supply
21	N.C	No connect	22	N.C	No connect
23	5V0	5.0 V supply	24	5V0	5.0 V supply
25	N.C	No connect	26	GND	Ground
27	SCL_1	Touch panel I^2C control	28	SDA	Touch panel I^2C control
29	INT_1	Touch panel interrupt	30	EN	+/-5.5 V DC/DC enable pin

Installing Stand offs

Before using the board, attach the standoffs with the screws provided in the kit.

Warning: You can damage the board if you over tighten the screws. Tighten all screws to a torque between 4 ± 0.5 kgf/cm and 5 ± 0.5 kgf/cm.

Revision History

Table 5: Revision History

Date	Version	Description
October 2022	1.1	Added part number. (DOC-917)
April 2022	1.0	Initial release.