

Specification of DG-Q820

MIPI Pattern GENERATOR (4Lane,8Lane)

Version 0.1



1. Description

The DG-Q820 is a MIPI pattern generator for R&D in areas related to LCD & OLED.

This pattern generator uses high performance application processor which can be used for smart phones.

And support android 6.0 (marshmallow).

2. Features

- Qualcomm Snapdragon 820 Processor
- Compliant to MIPI DSI standard specification (V1.01)
- Simplify your MIPI D-PHY test environment (V0.65, V0.81, V0.90, V1.01, V1.2)
- Compliant to VESA DSC (V1.1)
- Support Normal&DSC Video Play (android 6.0 marshmallow)
- Touch event injection under ether net (telnet protocol)

- Support Single port(4lane) or 8 lane for video mode and command mode
- Support data rate up to 1.5 Gbps/Lane
- Maximum resolution up to 4K Ultra HD
- Embedded 6 channel DC power supply
- Internal Flash-memory 8Gbyte

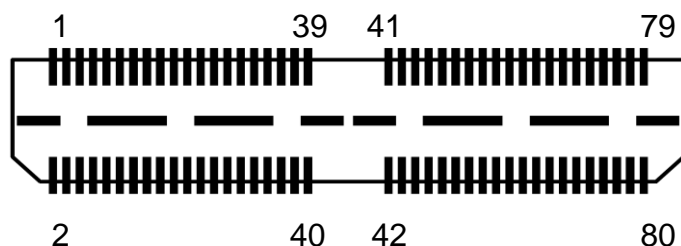
- Support read & write command during display on - One short or one long packet
- Stand alone play (5 buttons)

- GPIO 10ea, I2C 2ea, AMOLED PMIC pulse control 1ea,
- Gigabit Ethernet interface
- DC12V input

Technical specification

Item	Specification
Size	130mm X 155mm X 30mm (W x D x H)
Input Power	DC12V
PC Interface	Gigabit Ethernet
Compatibility Color	24 bit(888 format)
Signal Interface	MIPI (Mobile Industry Processor interface)
MIPI DC Level	HS(Common 0.2V \pm 0.1V), LP(0~1.2V)
Maximum Data rate	HS(1500Mbps/Lane), LP(10Mbps)
Maximum Resolution	2160RGB x 3840, 4K UHD
Signal output port	QTE type 80 pin (refer to pin map information)
DC Output Power (6ch)	Voltage range : 0.8V ~ 9.0V, 0.1V step (Max. 3A @5V)

DG-Q820 Pin map



**QTE-040-02-L-D-A
(DG-Q820 Connector)**



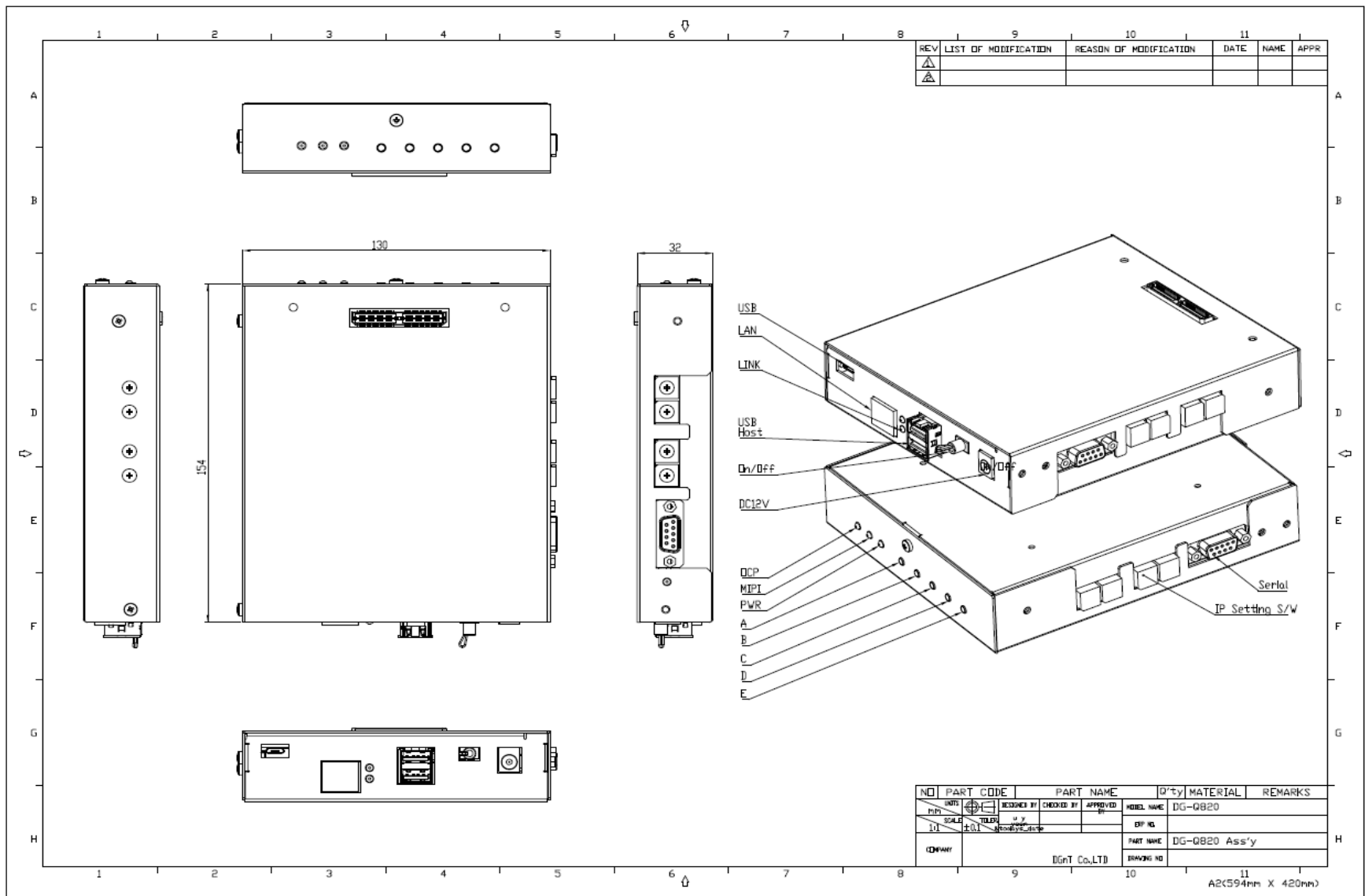
**QSE-040-02-L-D-A
(Interface Board Connector)**

Pin	Description	Pin	Description
2	TE	1	AUXGPO1/PMIC Ctrl
4	NC	3	AUXGPO2
6	GND	5	AUXGPO3
8	DSIA_3N	7	RESET_A
10	DSIA_3P	9	AUXGPO4
12	GND	11	AUXGPO5/AUXSCL
14	DSIA_2N	13	AUXGPO6/AUXSDA
16	DSIA_2P	15	AUXGPO7
18	GND	17	GND
20	DSIA_CLKN	19	AUXGPO8
22	DSIA_CLKP	21	NC
24	GND	23	NC
26	DSIA_1N	25	NC
28	DSIA_1P	27	NC
30	GND	29	NC
32	DSIA_0N	31	AUXGPO9/AUXSCL
34	DSIA_0P	33	AUXGPO10/AUXSDA
36	GND	35	GND
38	NC	37	CABC
40	NC	39	I2C_SPI_SEL
42	NC	41	PWR V1
44	NC	43	PWR V2
46	GND	45	PWR V2
48	DSIB_3N	47	PWR V3
50	DSIB_3P	49	PWR V3
52	GND	51	PWR V4
54	DSIB_2N	53	PWR V5
56	DSIB_2P	55	NC
58	GND	57	PWR V6
60	DSIB_CLKN	59	PWR V6
62	DSIB_CLKP	61	NC
64	GND	63	GND
66	DSIB_1N	65	TS_SPICS/I2CSDA (TBD)
68	DSIB_1P	67	TS_SPICLK/I2CSCL (TBD)
70	GND	69	TS_SPI_MISO (TBD)
72	DSIB_0N	71	TS_SPI_MOSI (TBD)
74	DSIB_0P	73	TS_INT (TBD)
76	GND	75	TS_RESET_N (TBD)
78	NC	77	NC
80	NC	79	NC

I2C_WR

I2C_WR1

DG-Q820 Outward Spec.





Thank You !

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