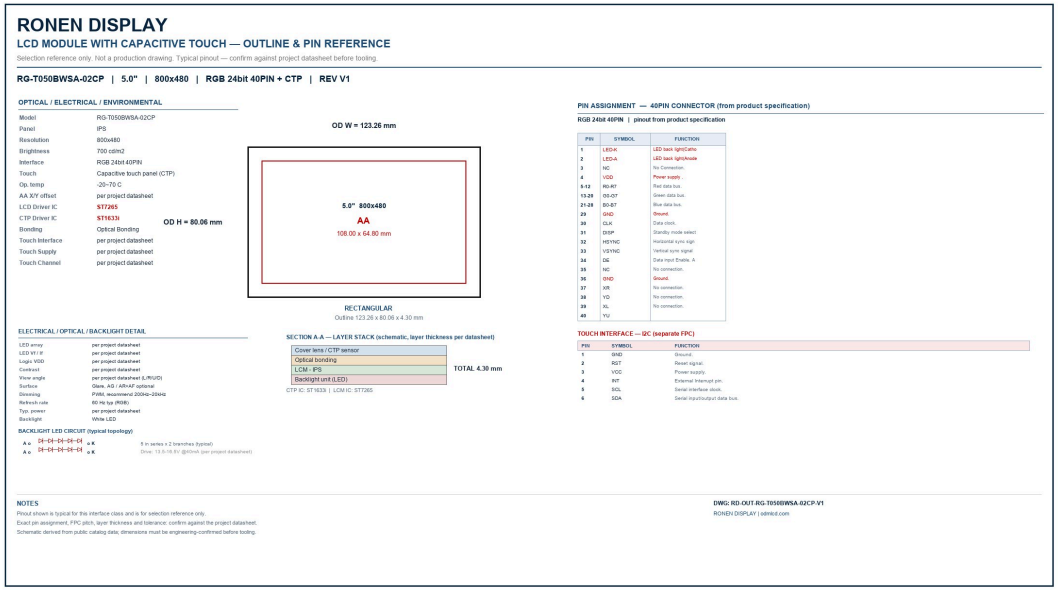
RONEN DISPLAY

LCD Module Datasheet

RG-T050BWSA-02CP

SPECIFICATION

Display Size	5.0 inch
Resolution	800x480
LCD Type / Shape	IPS
Luminance	700 cd/m2
Module Interface	RGB 24bit 40PIN
Touch Option	Capacitive touch panel (CTP)
Active Area (mm)	108.00x64.80
Outline Dim. (mm)	123.26x80.06x4.30
Operating Temp. (°C)	-20 ~ +70 degC
Storage Temp. (°C)	-30 ~ +80 degC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LCD MODULE WITH CAPACITIVE TOUCH — OUTLINE & PIN REFERENCE

Selection reference only. Not a production drawing. Typical pinout — confirm against project datasheet before tooling.

RG-T050BWSA-02CP | 5.0" | 800x480 | RGB 24bit 40PIN + CTP | REV V1

OPTICAL / ELECTRICAL / ENVIRONMENTAL

Model	RG-T050BWSA-02CP
Panel	IPS
Resolution	800x480
Brightness	700 cd/m2
Interface	RGB 24bit 40PIN
Touch	Capacitive touch panel (CTP)
Op. temp	-20~70 C
AA X/Y offset	per project datasheet
LCD Driver IC	ST7265
CTP Driver IC	ST1633i
Bonding	Optical Bonding
Touch Interface	per project datasheet
Touch Supply	per project datasheet
Touch Channel	per project datasheet

OD W = 123.26 mm

5.0" 800x480

AA

108.00 x 64.80 mm

OD H = 80.06 mm

RECTANGULAR

Outline 123.26 x 80.06 x 4.30 mm

PIN ASSIGNMENT — 40PIN CONNECTOR (from product specification)

RGB 24bit 40PIN | pinout from product specification

PIN	SYMBOL	FUNCTION
1	LED-K	LED back light(Cathode
2	LED-A	LED back light(Anode
3	NC	No Connection.
4	VDD	Power supply.
5-12	R0-R7	Red data bus.
13-20	G0-G7	Green data bus.
21-28	B0-B7	Blue data bus.
29	GND	Ground.
30	CLK	Data clock.
31	DISP	Standby mode select
32	HSYNC	Horizontal sync sign
33	VSYNC	Vertical sync signal
34	DE	Data input Enable. A
35	NC	No connection.
36	GND	Ground.
37	XR	No connection.
38	YD	No connection.
39	XL	No connection.
40	YU	

ELECTRICAL / OPTICAL / BACKLIGHT DETAIL

LED array	per project datasheet
LED Vf / If	per project datasheet
Logic VDD	per project datasheet
Contrast	per project datasheet
View angle	per project datasheet (L/R/U/D)
Surface	Glare, AG / AR+AF optional
Dimming	PWM, recommend 200Hz~20kHz
Refresh rate	60 Hz typ (RGB)
Typ. power	per project datasheet
Backlight	White LED

BACKLIGHT LED CIRCUIT (typical topology)

A o — [D][D][D][D][D] — o K

A o — [D][D][D][D][D] — o K

8 in series × 2 branches (typical)

Drive: 19.5–38.5V @50mA (per project datasheet)

SECTION A-A — LAYER STACK (schematic, layer thickness per datasheet)

Cover lens / CTP sensor
Optical bonding
LCM - PS
Backlight unit (LED)

TOTAL 4.30 mm

CTP IC: ST1633i | LCM IC: ST7265

TOUCH INTERFACE — I2C (separate FPC)

PIN	SYMBOL	FUNCTION
1	GND	Ground.
2	RST	Reset signal.
3	VCC	Power supply.
4	INT	External Interrupt pin.
5	SCL	Serial interface clock.
6	SDA	Serial input/output data bus.

NOTES

Pinout shown is typical for this interface class and is for selection reference only.

Exact pin assignment, FPC pitch, layer thickness and tolerance: confirm against the project datasheet.

Schematic derived from public catalog data; dimensions must be engineering-confirmed before tooling.

DWG: RD-OUT-RG-T050BWSA-02CP-V1

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Outline drawing - for reference only; confirm with latest datasheet.

Notes

Values are typical at 25 degC unless otherwise specified. Full drawing, pin assignment and qualification data available on request. Sales terms are confirmed per project.

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