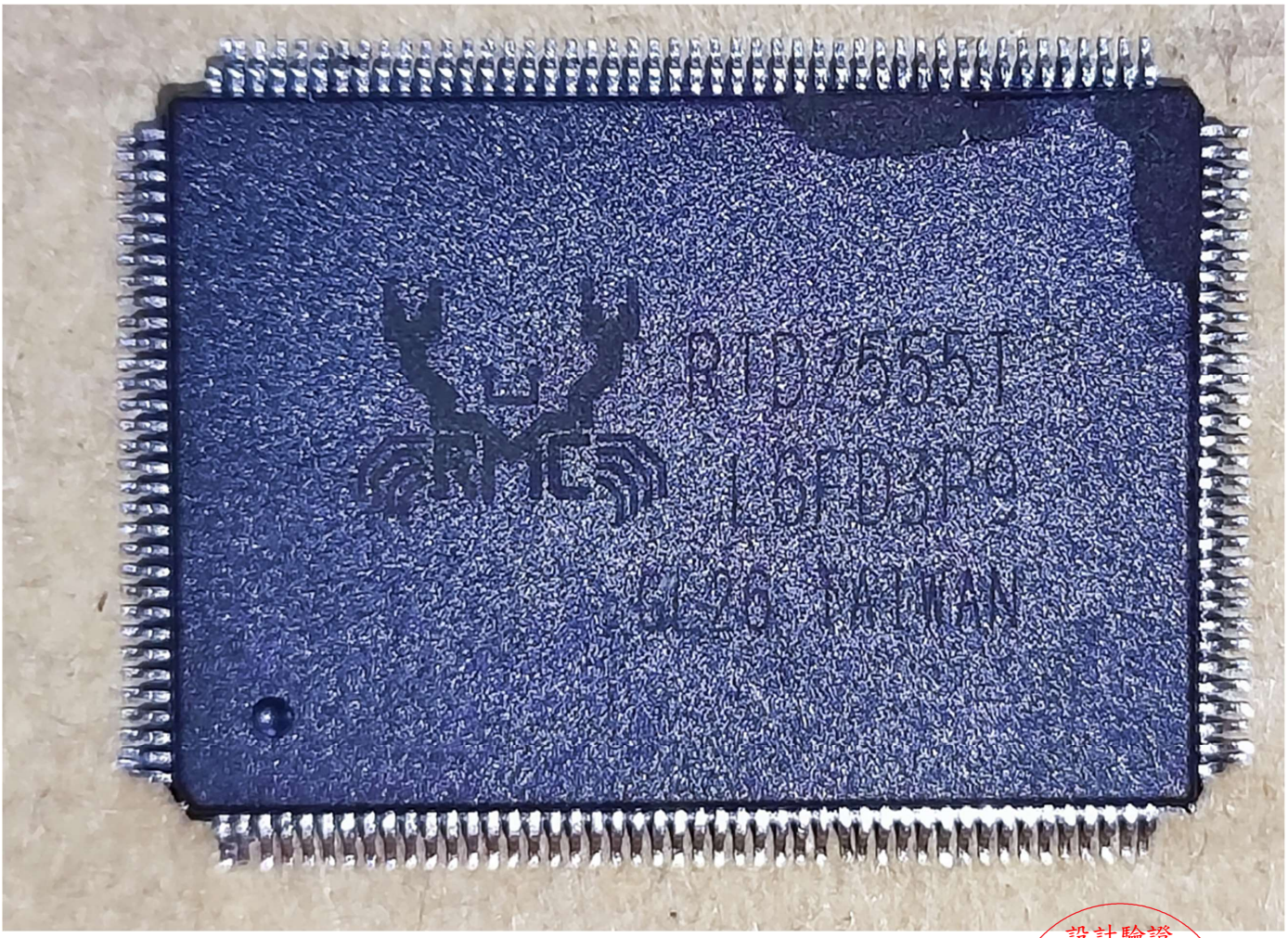


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RTD2555T

MULTI-FUNCTION DISPLAY CONTROLLER

3ARTD25551Y(A0544)

DATASHEET

(CONFIDENTIAL: Development Partners Only)

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USING THIS DOCUMENT

This document is intended for the software engineer's reference and provides detailed programming information.

Though every effort has been made to ensure that this document is current and accurate, more information may have become available subsequent to the production of this guide.

REVISION HISTORY

Revision	Release Date	Summary
1.00	2019/04/23	First release.
1.10	2021/07/22	Feature Upgrade
1.20	2022/11/14	Feature Upgrade
1.21	2023/05/29	Add max pixel clock

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1. General Description

The Realtek RTD2555T monitor controller combines an analog RGB input interface, one DP1.2 digital input interfaces with HDCP1.4, and one HDMI1.4/DP1.2 combo digital input interfaces with HDCP1.4 and one HDMI1.4 digital input interfaces with HDCP1.4. The embedded MCU is based on an industrial standard 8051 core with external serial flash.

The RTD2555T is suitable for multiple market segments and display applications, such as monitor, All in One PC, and embedded applications.

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2. Features

- Supports input format up to 1920x1080 @ 75Hz, 1920x1200 @ 75Hz.
- Zoom scaling up and down
- Embedded one MCU with SPI flash controller.
- It contains 4 ADCs in key pad application
- Require only one crystal to generate all timing.
- Programmable internal low-voltage-reset (LVR)
- High resolution 6 channels PWM output, and wide range selectable PWM frequency.
- Supports 3 ports of high speed receivers including one port of DP1.2 receiver, one port of HDMI1.4 receiver and one port of HDMI1.4/DVI/DisplayPort1.2 Combo receiver.

Crystal

- Support 14.318MHz crystal type

Analog RGB Input Interface

- 1 Analog input supported
- Integrated 8-bit triple-channel 210MHz ADC/PLL
- Embedded programmable Schmitt trigger of HSYNC
- Support Sync-On-Green (SOG) and various kinds of composite sync modes
- On-chip high-performance hybrid PLLs
- High resolution true 64 phase ADC PLL
- YPbPr support up to HDTV 1080p resolution

DVI 1.0 Compliant Digital Input Interface with HDCP 1.1

- Single link on-chip TMDS receiver
- Long cable support to 1.65GHz
- Adaptive algorithm for TMDS capability
- Data enable only mode support
- High-Bandwidth Digital Content Protection
- Enhanced protection of HDCP secret key

HDMI 1.4a Compliant Digital Input Interface with HDCP 1.4

- HDMI Input with embedded high speed switch
- Single link on-chip TMDS receiver up to 340MHz.
- Support 6-bit, 8-bit, 10-bit, and 12-bit color depth transport
- Support long cable
- Adaptive algorithm for TMDS capability
- Data enable only mode support
- High-Bandwidth Digital Content Protection (HDCP 1.4)
- Enhanced protection of HDCP secret key

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- Capable of 8-channel I2S/SPDIF output in HDMI application
- ATC Lab certification pass HDMI1.4a compliance test
- Support DVI 1.0
- Support AMD HDMI Freesync technology

DisplayPort 1.2 Digital Input Interface with HDCP 1.4

- Support 4 lanes digital input, each lanes speed up to 1.62Gbps and 2.7Gbps
- Support 6-bit, 8-bit, 10-bit, and 12-bit color depth transport
- High-Bandwidth Digital Content Protection (HDCP 1.4)
- Capable of 8-channel I2S/SPDIF output in DP application
- Support VESA Adaptive Sync technology

Embedded MCU

- Industrial standard 8051 core with external serial flash
- Low speed ADC for various application
- I2C Master or Slave hardware supported

Auto Detection/Auto Calibration

- Input format detection
- Compatibility with standard VESA mode and support user-defined mode
- Smart engine for Phase/Image position/Color calibration

Audio

- Output: IIS , SPDIF
- Embedded Audio DAC
- Embedded headphone amp

Scaling

- Fully programmable zoom ratios
- Independent horizontal/vertical scaling
- Advanced zoom algorithm provides high image quality
- Sharpness/Smooth filter enhancement
- Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3

Color Processor

- True 12-bit color processing engine
- Programmable 14-bit gamma support
- xvYCC supported
- Adobe/sRGB compliance
- Advanced dithering logic for the fewer panel color depth enhancement
- Dynamic overshoot-smear canceling engine
- Brightness and contrast control
- Peaking/Coring function for video sharpness
- Support UltraVivid III function to enhance image quality with minimal artificial effect on productivity applications

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VividColorTM

- Independent color management (ICM)
- Dynamic contrast control (DCC)
- 2nd generation of Precise color mapping (PCM)
- Image Adaptive Power Saving (IAPS)
- Support ADC Noise Reduction

Output Interface

- Support 8-bit output through LVDS
- Support 2-port LVDS with the speed of each port up to 93MHz
- Support 8-bit / 10-bit output through eDP
- Supports 4-lane eDP (HBR) with the output format up to 1920x1200@ 75Hz.
- Fully programmable display timing generator
- Flexible data pair swapping for easier system design.
- Fixed Last Line output for perfect panel capability

Embedded OSD

- Embedded 30K SRAM dynamically stores OSD command and fonts
- Support multi-color RAM font, 1, 2 and 4-bit per pixel
- 64 color palette
- Maximum 26 window with alpha-blending /
- gradient / gradient target color / gradient reversed color/ dynamic fade-in/fade-out, bordering/ shadow
- Rotate 90,180,270 degree
- Independent row shadowing/bordering
- Programmable blinking effects for each character
- OSD-made internal pattern generator for factory mode
- Support 12x18 ~ 4x18 proportional font
- Hardware decompression for OSD font
- Support OSD scrolling
- Support 2 independent font based OSD

Frame Buffer Support

- LiveShow™ Function, High-performance RTC (response time compensation).

Power Supply

- 5V / 2.5V/3.3V / 1.1V power supply

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3. System Applications

- Display System on Motherboard, Monitor
- Display System for All in One PCs and embedded applications

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4. Pin Assignments

LQFP156

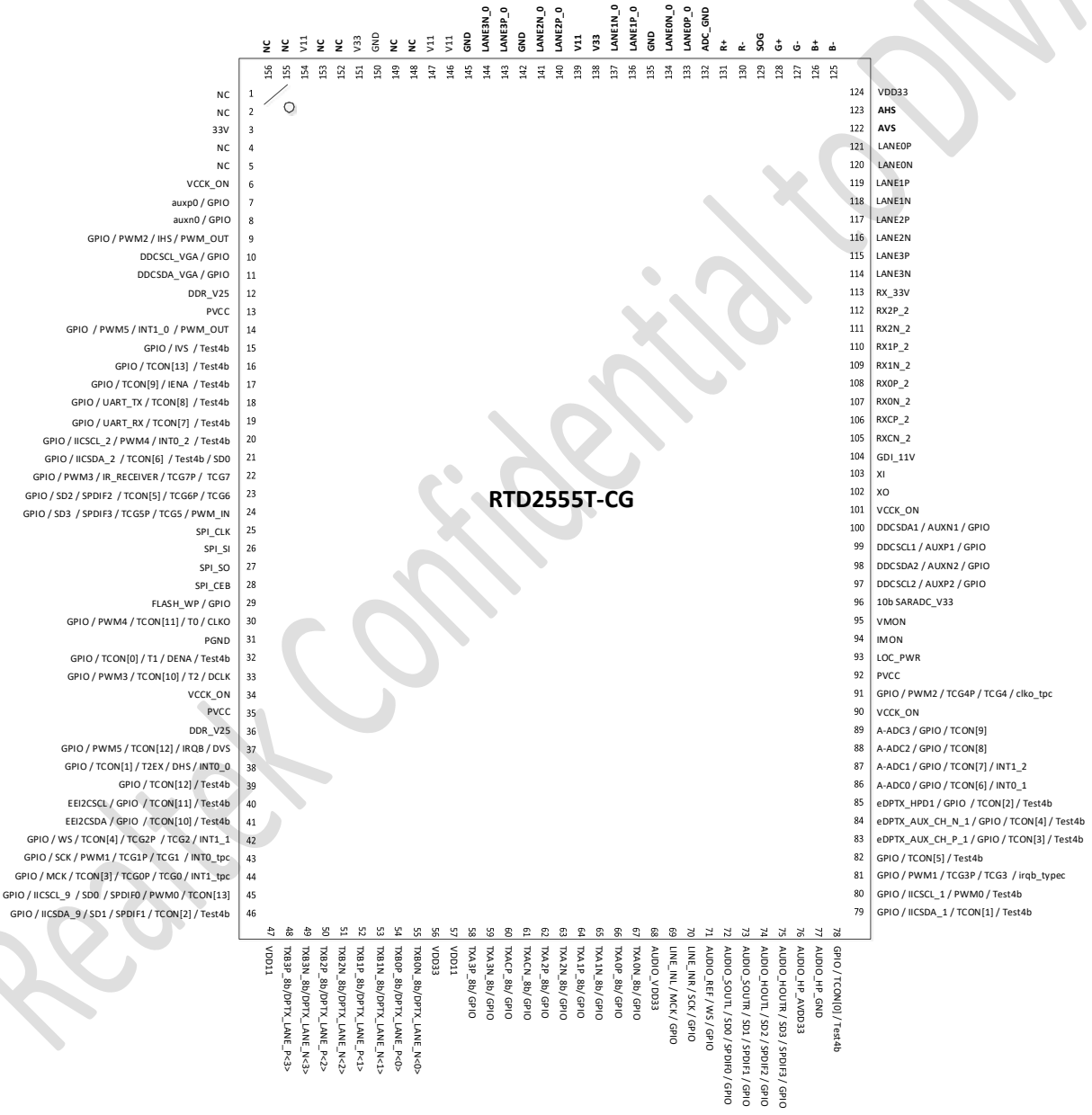


Figure 1. Pin Diagram of LQFP156

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5. Pin Assignments Table

Table 1. Signals Pin Assignment of LQFP156

(I/O Legend: A = Analog, I = Input, O = Output, P = Power, G = Ground)

Pin Name	I/O	Pin #	Description	Note
NC	-	1	NC	-
NC	-	2	NC	-
33V	AP	3	3.3V Power	(3.3V)
NC	-	4	NC	
NC	-	5	NC	
VCCK_ON	DP	6	Core Power	(1.1V)
auxp0 / GPIO	IO	7	AUX-CH / MCU GPIO	5V Tolerance when power off
auxn0 / GPIO	IO	8	AUX-CH / MCU GPIO	5V Tolerance when power off
GPIO / PWM2 / IHS / PWM_OUT	IO	9	MCU GPIO / PWM / PWM OUT	5V Tolerance when power off
DDCSCL_VGA / GPIO	IO	10	DDC VGA (Open drain I/O) / MCU GPIO	5V Tolerance when power off
DDCSDA_VGA / GPIO	IO	11	DDC VGA (Open drain I/O) / MCU GPIO	5V Tolerance when power off
DDR_V25	AP	12	DDR 2.5V Power	(2.5V)
PVCC	DP	13	Pad Power	(3.3V)
GPIO / PWM5 / INT1_0 / PWM_OUT	IO	14	MCU GPIO / PWM / MCU EXINT / PWM OUT	5V Tolerance when power off
GPIO / IVS / Test4b	IO	15	MCU GPIO / Test4b	5V Tolerance when power off
GPIO / TCON[13] / Test4b	IO	16	MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / TCON[9] / IENA / Test4b	IO	17	MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / UART_TX / TCON[8] / Test4b	IO	18	MCU GPIO / UART / TCON / Test4b	5V Tolerance when power off
GPIO / UART_RX / TCON[7] / Test4b	IO	19	MCU GPIO / UART / TCON / Test4b	5V Tolerance when power off
GPIO / IICSCL_2 / PWM4 / INT0_2 / Test4b / HDMI_HPD_INT1	IO	20	MCU GPIO / IIC BUS / PWM / MCU EXINT / Test4b / HDMI Hot-plug	5V Tolerance when power off
GPIO / IICSDA_2 / TCON[6] / Test4b / SD0	IO	21	MCU GPIO / IIC BUS / TCON / Test4b / I2S	5V Tolerance when power off
GPIO / PWM3 / IR_RECEIVER / TCG7P / TCG7	IO	22	MCU GPIO / PWM / IR Receiver / TypeC GPIO	5V Tolerance when power off

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GPIO / SD2 / SPDIF2 / TCON[5] / TCG6P / TCG6	IO	23	MCU GPIO / I2S / SPDIF / TCON / TypeC GPIO	5V Tolerance when power off
GPIO / SD3 / SPDIF3 / TCG5P / TCG5 / PWM_IN	IO	24	MCU GPIO / I2S / SPDIF / TypeC GPIO / PWM IN	5V Tolerance when power off
SPI_CLK	IO	25	SPI flash serial clock	3.3V Tolerance
SPI_SI	IO	26	SPI flash serial Data Input	3.3V Tolerance
SPI_SO	IO	27	SPI flash serial Data Output	3.3V Tolerance
SPI_CEB	IO	28	SPI flash Chip Enable	3.3V Tolerance
FLASH_WP / GPIO	IO	29	FLASH Write Protect / MCU GPIO	5V Tolerance when power off
GPIO / PWM4 / TCON[11] / T0 / CLKO	IO	30	MCU GPIO / PWM / TCON / Timer / CLKO	5V Tolerance when power off
PGND	DG	31	Pad Ground	
GPIO / TCON[0] / T1 / DENA / Test4b	IO	32	MCU GPIO / TCON / Timer / Test4b	5V Tolerance when power off
GPIO / PWM3 / TCON[10] / T2 / DCLK	IO	33	MCU GPIO / PWM / TCON / Timer	5V Tolerance when power off
VCCK_ON	DP	34	Core Power	(1.1V)
PVCC	DP	35	Pad Power	(3.3V)
DDR_V25	AP	36	DDR 2.5V Power	(2.5V)
GPIO / USB_SPI_CEB0 / PWM5 / TCON[12] / IRQB / DVS	IO	37	MCU GPIO / USB SPI / PWM / TCON / IRQB	5V Tolerance when power off
GPIO / USB_SPI_CEB1 / TCON[1] / T2EX / DHS / INT0_0	IO	38	MCU GPIO / USB SPI / TCON / Timer / MCU EXINT	5V Tolerance when power off
GPIO / TCON[12] / Test4b	IO	39	MCU GPIO / TCON / Test4b	5V Tolerance when power off
EEI2CSCL / GPIO / TCON[11] / Test4b	IO	40	EEPROM IIC BUS / MCU GPIO / TCON / Test4b	5V Tolerance when power off
EEI2CSDA / GPIO / TCON[10] / Test4b	IO	41	EEPROM IIC BUS / MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / WS / TCON[4] / TCG2P / TCG2 / INT1_1	IO	42	MCU GPIO / I2S / TCON / TypeC GPIO / MCU EXINT	5V Tolerance when power off
GPIO / SCK / PWM1 / TCG1P / TCG1 / INT0_tpc	IO	43	MCU GPIO / I2S / PWM / TypeC GPIO / MCU EXINT	5V Tolerance when power off

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GPIO / MCK / TCON[3] / TCG0P / TCG0 / INT1_tpc	IO	44	MCU GPIO / I2S / TCON / TypeC GPIO / MCU EXINT	5V Tolerance when power off
GPIO / IICSCL_9 / SD0 / SPDIF0 / PWM0 / TCON[13]	IO	45	MCU GPIO / TypeC IIC / I2S / SPDIF / PWM / TCON	5V Tolerance when power off
GPIO / IICSDA_9 / SD1 / SPDIF1 / TCON[2] / Test4b	IO	46	MCU GPIO / TypeC IIC / I2S / SPDIF / TCON / Test4b	5V Tolerance when power off
VDD11	AP	47	1.1V Power	(1.1V)
TXB3P_8b / DPTX_LANE_P<3>	AO	48	LVDS /eDPTX	3.3V Tolerance
TXB3N_8b / DPTX_LANE_N<3>	AO	49	LVDS /eDPTX	3.3V Tolerance
TXB2P_8b / DPTX_LANE_P<2>	AO	50	LVDS /eDPTX	3.3V Tolerance
TXB2N_8b / DPTX_LANE_N<2>	AO	51	LVDS /eDPTX	3.3V Tolerance
TXB1P_8b / DPTX_LANE_P<1>	AO	52	LVDS /eDPTX	3.3V Tolerance
TXB1N_8b / DPTX_LANE_N<1>	AO	53	LVDS /eDPTX	3.3V Tolerance
TXB0P_8b / DPTX_LANE_P<0>	AO	54	LVDS /eDPTX	3.3V Tolerance
TXB0N_8b / DPTX_LANE_N<0>	AO	55	LVDS /eDPTX	3.3V Tolerance
VDD33	AP	56	3.3V Power	(3.3V)
VDD11	AP	57	1.1V Power	(1.1V)
TXA3P_8b/ GPIO	AIO	58	LVDS / MCU GPIO	3.3V Tolerance
TXA3N_8b/ GPIO	AIO	59	LVDS / MCU GPIO	3.3V Tolerance
TXACP_8b/ GPIO	AIO	60	LVDS / MCU GPIO	3.3V Tolerance
TXACN_8b/ GPIO	AIO	61	LVDS / MCU GPIO	3.3V Tolerance
TXA2P_8b/ GPIO	AIO	62	LVDS / MCU GPIO	3.3V Tolerance
TXA2N_8b/ GPIO	AIO	63	LVDS / MCU GPIO	3.3V Tolerance
TXA1P_8b/ GPIO	AIO	64	LVDS / MCU GPIO	3.3V Tolerance
TXA1N_8b/ GPIO	AIO	65	LVDS / MCU GPIO	3.3V Tolerance
TXA0P_8b/ GPIO	AIO	66	LVDS / MCU GPIO	3.3V Tolerance
TXA0N_8b/ GPIO	AIO	67	LVDS / MCU GPIO	3.3V Tolerance
AUDIO_VDD33	AP	68	Audio DAC 3.3V Power	(3.3V)
LINE_INL / MCK / GPIO	AIO	69	LINE_INL / I2S / MCU GPIO	3.3V Tolerance
LINE_INR / SCK / GPIO	AIO	70	LINE_INR / I2S / MCU	3.3V Tolerance

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			GPIO	
AUDIO_REF / WS / GPIO	AIO	71	AUDIO_REF / I2S / MCU GPIO	3.3V Tolerance
AUDIO_SOUTL / SD0 / SPDIF0 / GPIO	AIO	72	AUDIO_SOUTL / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_SOUTR / SD1 / SPDIF1 / GPIO	AIO	73	AUDIO_SOUTR / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_HOUTL / SD2 / SPDIF2 / GPIO	AIO	74	AUDIO_HOUTL / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_HOUTR / SD3 / SPDIF3 / GPIO	AIO	75	AUDIO_HOUTL / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_HP_AVDD33	AP	76	AUDIO HP 3.3V Power	(3.3V)
AUDIO_HP_GND	AG	77	AUDIO HP Ground	
GPIO / TCON[0] / Test4b	IO	78	MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / IICSDA_1 / TCON[1] / Test4b	IO	79	MCU GPIO / IIC BUS / TCON / Test4b	5V Tolerance when power off
GPIO / IICSCL_1 / PWM0 / Test4b	IO	80	MCU GPIO / IIC BUS / PWM / Test4b	5V Tolerance when power off
GPIO / PWM1 / TCG3P / TCG3 / irqb_typec	IO	81	MCU GPIO / PWM / TypeC GPIO	5V Tolerance when power off
GPIO / TCON[5] / Test4b / HDMI_HPD_INT2	IO	82	MCU GPIO / TCON / Test4b / HDMI Hot-plug	5V Tolerance when power off
eDPTX_AUX_CH_P_1 / GPIO / TCON[3] / Test4b	IO	83	eDPTX AUX / MCU GPIO / TCON / Test4b	5V Tolerance when power off
eDPTX_AUX_CH_N_1 / GPIO / TCON[4] / Test4b	IO	84	eDPTX AUX / MCU GPIO / TCON / Test4b	5V Tolerance when power off
eDPTX_HPD1 / GPIO / TCON[2] / Test4b	IO	85	eDPTX HPD / MCU GPIO / TCON / Test4b	5V Tolerance when power off
A-ADC0 / GPIO / TCON[6] / INT0_1	AIO	86	5bits MCU ADC Input / MCU GPIO / TCON / MCU EXINT	3.3 V tolerance when using ADC Input; 5V Tolerance power on when using GPIO
A-ADC1 / GPIO / TCON[7] / INT1_2	AIO	87	5bits MCU ADC Input / MCU GPIO / TCON / MCU EXINT	3.3 V tolerance when using ADC Input; 5V Tolerance power on when using GPIO
A-ADC2 / GPIO / TCON[8]	AIO	88	5bits MCU ADC Input / MCU GPIO / TCON	3.3 V tolerance when using

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				ADC Input; 5V Tolerance power on when using GPIO
A-ADC3 / GPIO / TCON[9]	AIO	89	5bits MCU ADC Input / MCU GPIO / TCON	3.3 V tolerance when using ADC Input; 5V Tolerance power on when using GPIO
VCCK_ON	DP	90	Core Power	(1.1V)
GPIO / PWM2 / TCG4P / TCG4 / clko_tpc	IO	91	MCU GPIO / PWM / TypeC GPIO	5V Tolerance when power off
PVCC	DP	92	Pad Power	(3.3V)
LOC_PWR	AI	93	10bits ADC Input	5V Tolerance when power off
IMON	AI	94	10bits ADC Input	5V Tolerance when power off
VMON	AI	95	10bits ADC Input	5V Tolerance when power off
10b SARADC_V33	AP	96	10bits ADC 3.3V Power	(3.3V)
DDCSCL2 / AUXP2 / GPIO	IO	97	DDC Channel (Open drain I/O) / AUX-CH / MCU GPIO	5V Tolerance when power off
DDCSDA2 / AUXN2 / GPIO	IO	98	DDC Channel (Open drain I/O) / AUX-CH / MCU GPIO	5V Tolerance when power off
DDCSCL1 / AUXP1 / GPIO	IO	99	DDC Channel (Open drain I/O) / AUX-CH / MCU GPIO	5V Tolerance when power off
DDCSDA1 / AUXN1 / GPIO	IO	100	DDC Channel (Open drain I/O) / AUX-CH / MCU GPIO	5V Tolerance when power off
VCCK_ON	DP	101	Core Power	(1.1V)
XO	AO	102	Crystal Output	3.3V Tolerance
XI	AI	103	Crystal Input	3.3V Tolerance
GDI_11V	AP	104	GDI 1.1V Power	(1.1V)
RXCN_2	AI	105	TMDS Input	
RXCP_2	AI	106	TMDS Input	
RX0N_2	AI	107	TMDS Input	
RX0P_2	AI	108	TMDS Input	
RX1N_2	AI	109	TMDS Input	
RX1P_2	AI	110	TMDS Input	

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RX2N_2	AI	111	TMDS Input	
RX2P_2	AI	112	TMDS Input	
RX_33V	AP	113	GDI 3.3V Power	(3.3V)
LANE3N	AI	114	DP Differential Signal /TMDS input	
LANE3P	AI	115	DP Differential Signal /TMDS input	
LANE2N	AI	116	DP Differential Signal /TMDS input	
LANE2P	AI	117	DP Differential Signal /TMDS input	
LANE1N	AI	118	DP Differential Signal /TMDS input	
LANE1P	AI	119	DP Differential Signal /TMDS input	
LANE0N	AI	120	DP Differential Signal /TMDS input	
LANE0P	AI	121	DP Differential Signal /TMDS input	
AVS	AI	122	ADC Vertical Sync Input	5V Tolerance when power off
AHS	AI	123	ADC Horizontal Sync Input	5V Tolerance when power off
ADC_VDD33	AP	124	ADC 3.3V Power	(3.3V)
B-	AI	125	Negative Blue analog input (Pb-)	3.3V Tolerance
B+	AI	126	Positive Blue analog input (Pb+)	3.3V Tolerance
G-	AI	127	Negative Green analog input (Y-)	3.3V Tolerance
G+	AI	128	Positive Green analog input (Y+)	3.3V Tolerance
SOG	AI	129	Sync-On-Green	3.3V Tolerance
R-	AI	130	Negative RED analog input (Pr-)	3.3V Tolerance
R+	AI	131	Positive RED analog input (Pr+)	3.3V Tolerance
ADC_GND	AG	132	ADC Ground	
LANE0P_0	AI	133	DP Differential Signal	-
LANE0N_0	AI	134	DP Differential Signal	-
DP_GND	AG	135	Ground	
LANE1P_0	AIO	136	DP Differential Signal	-
LANE1N_0	AIO	137	DP Differential Signal	-

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V33	AP	138	3.3V Power	(3.3V)
V11	AP	139	1.1V Power	(1.1V)
LANE2P_0	AI	140	DP Differential Signal	-
LANE2N_0	AI	141	DP Differential Signal	-
DP_GND	AG	142	Ground	
LANE3P_0	AIO	143	DP Differential Signal	-
LANE3N_0	AIO	144	DP Differential Signal	-
GND	AG	145	Ground	
V11	AP	146	1.1V Power	(1.1V)
V11	AP	147	1.1V Power	(1.1V)
NC	-	148	NC	-
NC	-	149	NC	-
GND	AG	150	Ground	
V33	AP	151	3.3V Power	(3.3V)
NC	-	152	NC	-
NC	-	153	NC	-
V11	AP	154	1.1V Power	(1.1V)
NC	-	155	NC	-
NC	-	156	NC	-

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6. Register Description

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7. Electrical Specifications

Electrical Specifications
LQFP156 DC Characteristics

7.1. Recommended Operating Conditions

Table 2. Recommended Operating Conditions of LQFP156

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Voltage on Input (5V tolerance)	V_{IN}	-1		5	V
Supply Voltage	5V	4.75	5	5.25	V
	PVCC	3.14	3.30	3.47	V
	2.5V_DDR	2.38	2.5	2.63	V
	VCCK_ON	1.05	1.1	1.16	V
	VCCK_OFF	1.05	1.1	1.16	V
Electrostatic Discharge	V_{ESD}			±2.5	kV
Latch-Up	I_{LA}			±100	mA
Ambient Operating Temperature	T_A	0		70	ºC
Storage Temperature (plastic)	T_{STG}	-55		125	ºC
Thermal Resistance (Junction to Air)	θ_{JA}				ºC/W
Thermal Resistance (Junction to Case)	θ_{JC}				ºC/W
Junction Acceptable Temperature	T_j			125	ºC

7.2. Absolute Maximum Ratings

Table 3. Absolute Maximum Ratings of LQFP156

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage	VCONN_IN			5.5	V
	PVCC			3.6	V
	2.5V_DDR			2.75	V
	VCCK_ON			1.21	V
	VCCK_OFF			1.21	V
Storage Temperature (plastic)	T_{STG}			150	ºC
Junction Acceptable Temperature	T_j			150	ºC

Note : Operation under the absolute maximum ratings does not imply well-functioning. Long-term stress to the absolute maximum ratings would probably affect the device reliability or further cause permanent damage.

7.3. Reset Period

Table 4. Reset Period of LQFP156

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Reset Pulse Period	Trst-en[1]	1120			ns
Power-on-Reset Period	Tpor-rst[2]	145	146.5	148	ms

1. 16 * Xtal_cycle(1/14.3Mhz)
2. 65536*16*2*Xtal_cycle(1/14.3Mhz)

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8. Mechanical Specifications

Thermal Enhanced Low Profile Plastic Quad Flat Package 156 Leads

14x20mm^2 Outline

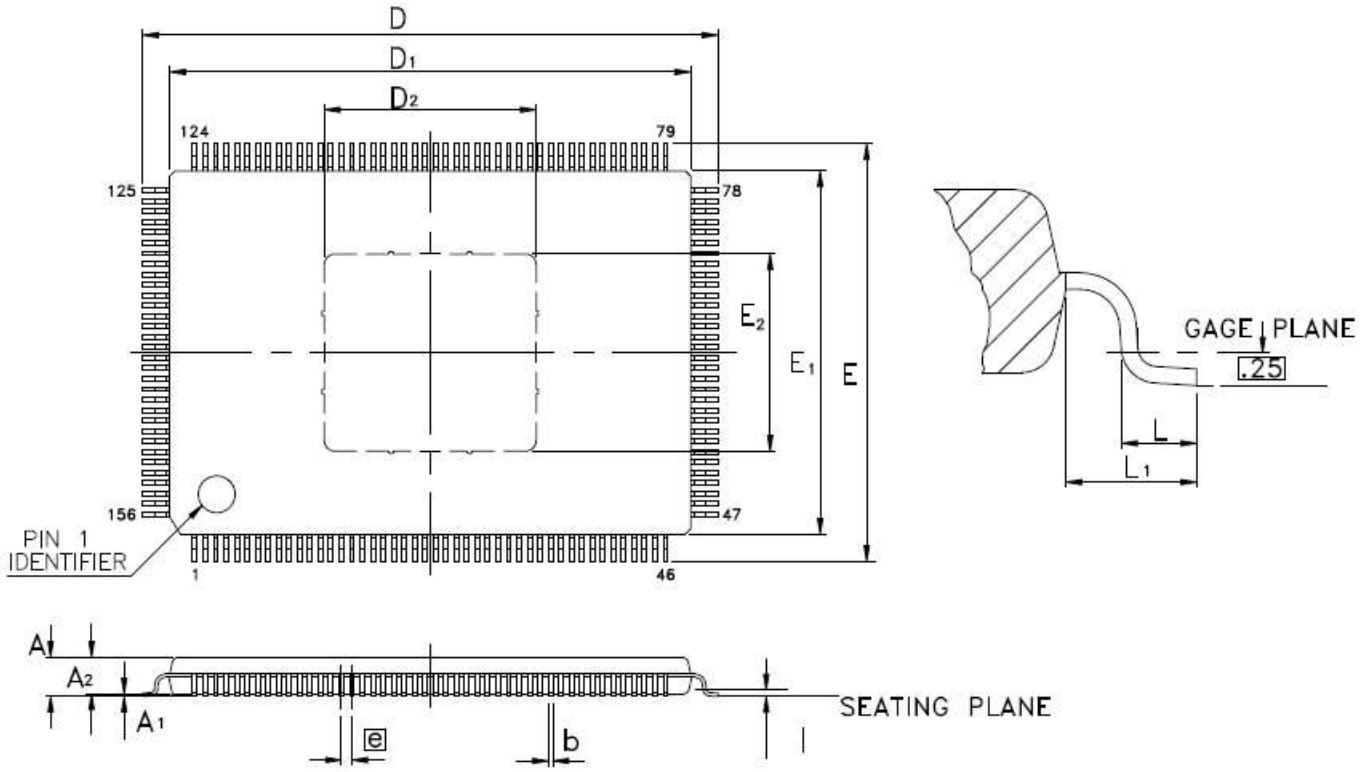


Figure 2. Mechanical Specification of LQFP156 Leads

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Table 5. Mechanical Specification of LQFP156 Leads

Symbol	Dimension in mm			Dimension in inch		
	Min	Nom	Max	Min	Nom	Max
A	—	—	1.60	—	—	0.063
A_1	0.05	—	0.15	0.002	—	0.006
A_2	1.35	1.40	1.45	0.053	0.055	0.057
b	0.13	0.18	0.23	0.005	0.007	0.009
D	21.90	22.00	22.10	0.862	0.866	0.870
E	15.90	16.00	16.10	0.626	0.630	0.634
D_1	19.90	20.00	20.10	0.783	0.787	0.791
E_1	13.90	14.00	14.10	0.547	0.551	0.555
D_2	7.85	8.10	8.35	0.309	0.319	0.329
E_2	7.30	7.55	7.80	0.287	0.297	0.307
e	0.40 BSC			0.016 BSC		
L	0.45	0.60	0.75	0.018	0.024	0.030
L1	1.00 REF			0.039 REF		

Notes：

1. CONTROLLING DIMENSION：MILLIMETER(mm).
2. REFERENCE DOCUMENTL：JEDEC MS-26.

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9. Ordering Information

Table 6. Ordering Information

Part No.	Max. Resolution	Input : VGA	Input : DP1.2	Input : HDMI1.4/ DVI	Input : DP1.2 /HDMI 1.4 Combo	Output : LVDS/eDP	FRC	OD	PKG
RTD2555T-CG	1920x1080 @75Hz (168M)	●	1 Port	1 Port	1 Port	●	●	●	LQFP156

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