



Dragonchip

DC6688SLP-USB Rev3.2 User Manual

User Manual of DC6688SLP-USB Rev3.2
Single Line Programmer for DC6688F family with USB interface

User Manual
Document Revision 1.1

Jun, 2015

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1 Introduction

This document briefly describes the details of the programming tool “Single Line Programmer for DC6688F family with USB interface” with model number “DC6688SLP-USB Rev3.2”.

1.1 Ordering Information

Device Name	Single Line Programmer for DC6688F family with USB interface
Model Number	DC6688SLP-USB

1.2 Features

- ✧ **Standalone** – download data to devices without connection to PC
- ✧ **1 to 10** – download data to up to 10 devices simultaneously
- ✧ **Optimized Speed** – download 2KB data to flash in 1.6 seconds
- ✧ **2-color LED** – indicate downloading result
- ✧ **Backlight LCD** – show device and customer information
- ✧ **SLP Software** – simple user interface

1.3 Package

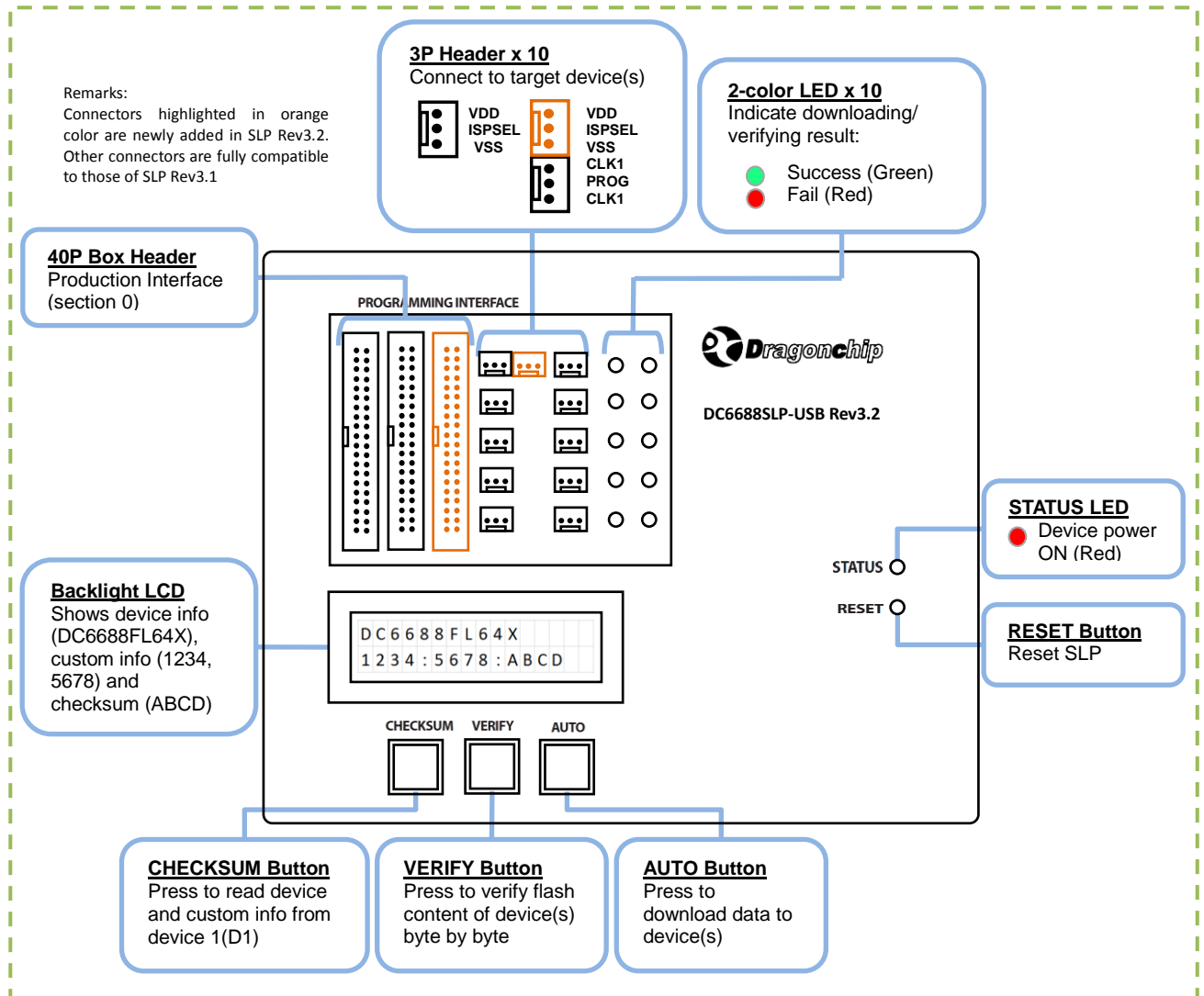
1. Single Line Programmer (SLP)
2. Power Adaptor with 5VDC Output
3. USB2.0 Cable
4. User Manual

1.4 Useful Links

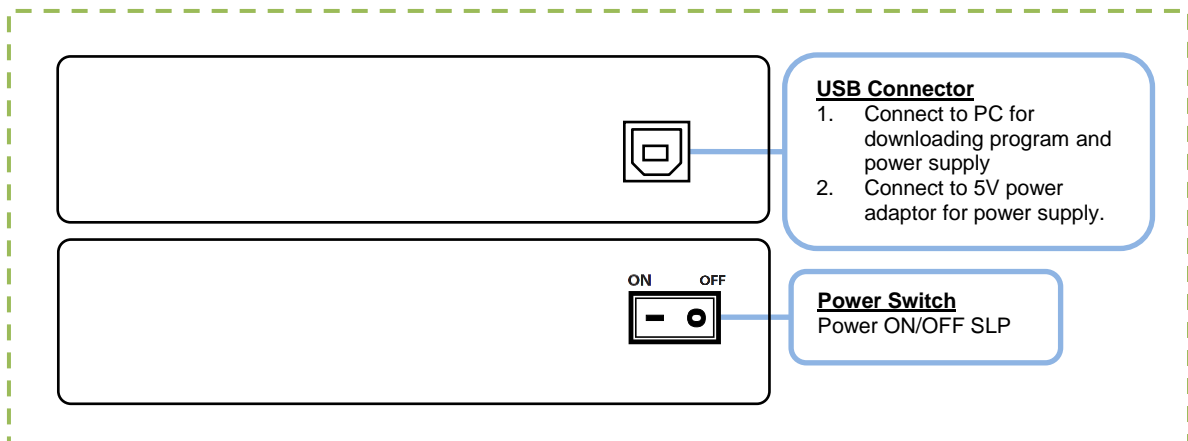
1. SLP Page – download latest software installer and user manual
<http://www.dragonchip.com/TechDoc/DevelopmentTools/SLP.htm>
2. Technical Website of DC6688 Product Family
<http://www.dragonchip.com/TechDoc/DC6688.htm>
3. Technical Website of DC6388 Product Family
<http://www.dragonchip.com/TechDoc/DC6388.htm>

2 Hardware

Top View



Side View



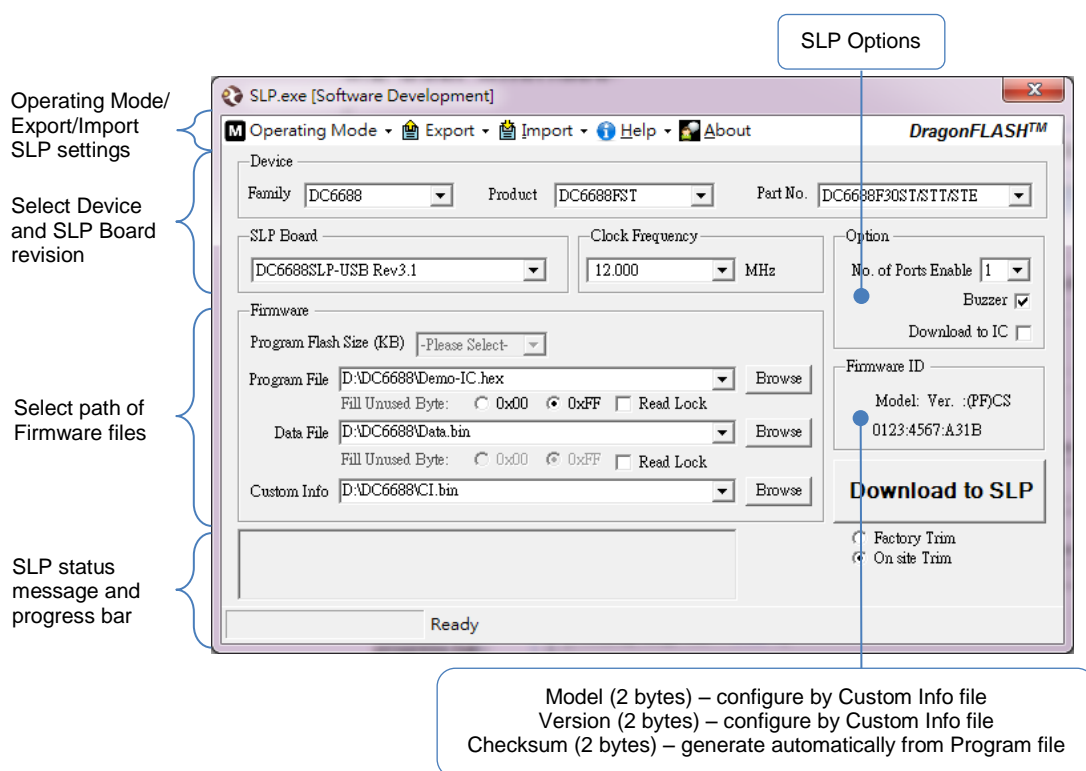
3 SLP Software

Install the SLP software (version 6.8.5 or above) by the software installation CD.

3.1 Minimum System Requirements

- Microsoft Windows 7
- Intel Pentium 4 CPU running at 1.5GHz or higher

3.2 User Interface



4 Download to Device

The SLP is able to download data to up to 10 devices simultaneously. The target device(s) should be connected to SLP either via the 10 pieces 3P Header or the 40P Box Header. For the SLP setup details of different products, please refer to the application note AppNote011.

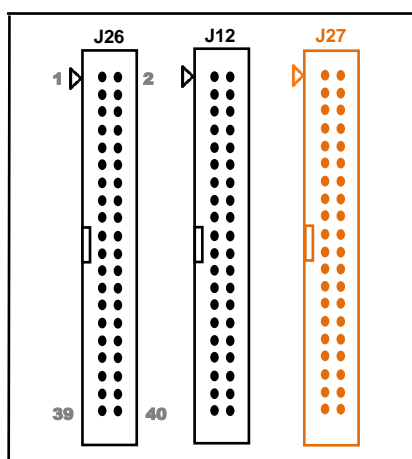
4.1 Downloading Time

The following table listed the downloading time from SLP to various DC6688 and DC6388 products:

Target Device		Flash Size	Downloading Time		
			4MHz Resonator	12MHz Resonator	Built-in OSC @12MHz
DC6688	F2SCN	2KB	1.6s	1.4s	-
	F2STR	2KB	-	-	1.6s
	FSE	30KB	-	4.2s	-
		62KB	-	8.2s	-
	FST	30KB	-	-	4.5s
	FLE	32KB	-	4.6s	-
	FLT	32KB	-	-	4.8s
		64KB	-	-	8.4s
		96KB	-	-	11.5s

4.2 40P Box Header

The main purpose of this interface is for programming setup in production. For further setup recommendation, please refer to the application note AppNote101 or contact Dragonchip technical support team.



Remarks:
J27 is newly added in SLP Rev3.2
J26 and J12 are fully compatible to those in SLP Rev3.1

J26 Pin Assignment	Pin	Name	Connection	Pin	Name	Connection
	1	LCD_P9	LCD module pin 9 (DB2)	2	GND	GND
	3	LCD_P8	LCD module pin 8 (DB1)	4	LCD_P10	LCD module pin 10 (DB3)
	5	LCD_P7	LCD module pin 7 (DB0)	6	LCD_P11	LCD module pin 11 (DB4)
	7	LCD_P6	LCD module pin 6 (E)	8	LCD_P12	LCD module pin 12 (DB5)
	9	LCD_P5	LCD module pin 5 (R/W)	10	LCD_P13	LCD module pin 13 (DB6)
	11	LCD_P4	LCD module pin 4 (RS)	12	LCD_P14	LCD module pin 14 (DB7)
	13	LCD_P3	LCD module pin 3 (VEE)	14	LCD_P15	LCD module pin 15 (LED+)
	15	LCD_P2	LCD module pin 2 (VCC)	16	LCD_P16	LCD module pin 16 (LED-)
	17	LCD_P1	LCD module pin 1 (VSS)	18	GND	GND
	19	GND	GND	20	NC	NC
	21	CLK1	D1 XIN/ ECLK pin	22	GND	GND
	23	CLK2	D2 XIN/ ECLK pin	24	GND	GND
	25	CLK3	D3 XIN/ ECLK pin	26	GND	GND
	27	CLK4	D4 XIN/ ECLK pin	28	GND	GND
	29	CLK5	D5 XIN/ ECLK pin	30	GND	GND
	31	CLK6	D6 XIN/ ECLK pin	32	GND	GND
	33	CLK7	D7 XIN/ ECLK pin	34	GND	GND
	35	CLK8	D8 XIN/ ECLK pin	36	GND	GND
	37	CLK9	D9 XIN/ ECLK pin	38	GND	GND
39	CLK10	D10 XIN/ ECLK pin	40	GND	GND	

J12 Pin Assignment	Pin	Name	Connection	Pin	Name	Connection
	1	LED_R_1	Red LED cathode for D1	2	GND	GND
	3	LED_G_1	Green LED cathode for D1	4	LED_G_6	Green LED cathode for D6
	5	LED_R_2	Red LED cathode for D2	6	LED_R_7	Red LED cathode for D7
	7	LED_G_2	Green LED cathode for D2	8	LED_G_7	Green LED cathode for D7
	9	LED_R_3	Red LED cathode for D3	10	LED_R_8	Red LED cathode for D8
	11	LED_G_3	Green LED cathode for D3	12	LED_G_8	Green LED cathode for D8
	13	LED_R_4	Red LED cathode for D4	14	LED_R_9	Red LED cathode for D9
	15	LED_G_4	Green LED cathode for D4	16	LED_G_9	Green LED cathode for D9
	17	LED_R_5	Red LED cathode for D5	18	LED_R_10	Red LED cathode for D10
	19	GND	GND	20	NC	NC
	21	LED_G_5	Green LED cathode for D5	22	GND	GND
	23	LED_R_6	Red LED cathode for D6	24	GND	GND
	25	NC	NC	26	GND	GND
	27	KEY_CS	CHECKSUM Key (short to GND)	28	LED_G_10	Red LED cathode for D10
	29	VCC_LED	Power supply for LED	30	GND	GND
	31	VCC_LED	Power supply for LED	32	KEY_VF	VERIFY Key (short to GND)
	33	VCC_LED	Power supply for LED	34	KEY_AUTO	AUTO Key (short to GND)
	35	VCC_LED	Power supply for LED	36	NC	NC
	37	VCC_LED	Power supply for LED	38	NC	NC
39	NC	NC	40	GND	GND	

J27 Pin Assignment	Pin	Name	Connection	Pin	Name	Connection
	1	NC	NC	2	GND	GND
	3	NC	NC	4	NC	NC
	5	NC	NC	6	NC	NC
	7	NC	NC	8	NC	NC
	9	NC	NC	10	VDD	Power supply for IC
	11	NC	NC	12	VDD	Power supply for IC
	13	NC	NC	14	VDD	Power supply for IC
	15	PROG_A	ISPSEL of D1-D5 of FLT	16	VDD	Power supply for IC
	17	PROG_B	ISPSEL of D6-D10 of FLT	18	GND	GND
	19	GND	GND	20	NC	NC
	21	ISPSEL/SL1	D1 ISPSEL/ SL	22	GND	GND
	23	ISPSEL/SL2	D2 ISPSEL/ SL	24	GND	GND
	25	ISPSEL/SL3	D3 ISPSEL/ SL	26	GND	GND
	27	ISPSEL/SL4	D4 ISPSEL/ SL	28	GND	GND
	29	ISPSEL/SL5	D5 ISPSEL/ SL	30	GND	GND
	31	ISPSEL/SL6	D6 ISPSEL/ SL	32	GND	GND
	33	ISPSEL/SL7	D7 ISPSEL/ SL	34	GND	GND
	35	ISPSEL/SL8	D8 ISPSEL/ SL	36	GND	GND
	37	ISPSEL/SL9	D9 ISPSEL/ SL	38	GND	GND
39	ISPSEL/SL10	D10 ISPSEL/ SL	40	GND	GND	

5 Revision History

The following table shows the revision history for this document.

Document Rev No.	Issued Date	Section	Page	Description	Edited by	Reviewed by
1.0	Jun, 2015			First release for SLP Rev3.2	Celia Ki	Danny Ho
1.1	Jun, 2015			Updated section 3 and J27 pin assignment	Danny Ho	Celia Ki

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