

## Ultra96 V2

### AES-ULTRA96-V2-G

#### Product Change Notification PCN19003

##### Subject(s):

1. U20 Regulator change from 0.9V to 0.85V
2. PMIC file update
3. Fan-Cage assembly change.

**Products Affected:** This PCN affects the part numbers listed below for date codes 1948 and later.

The date code is visible in the 2D barcode. The date code is the 4<sup>th</sup> line of the code and is 4 digits formatted as “YYWW.”



##### Change Description 1:

Change U20 from Part Number NCP134AMX090TCG to new part number NCP134AMX085TCG.

**Reason for Change:** Xilinx’s initial recommendation for MGTRAVCC was 0.9VDC. It has since been revised to 0.85VDC. The new regulator provides 0.85VDC.

##### Change Description 2:

U11 & U12 Infineon Rocky PMIC programming file update. See Attachment 1 for changes.

**Reason for Change:** Adjusted rail currents, voltages and warning points allowing better thermal performance when the PL’s are heavily loaded (>70%) and the unit is not bulkhead mounted.

##### Change Description 3:

Custom passive heatsink replaces the original fan / bracket assembly.

**Reason for Change:** Heatsink provides better thermal relief, no noise and increased reliability over fan bracket assembly. New heatsink also needed for industrial temp operation.

## ATTACHMENT 1:

## Device 0x13 Changes:

0x13 Device - Rocky PMIC file changes: March to August 2019:					
0x13 SW A:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x13_Aug_2)	Meaning (0x13_Aug_2)
0x0680 [15:0]	L0_CMD_VOUT_OV_FAULT_LIMIT	0x1E6	1.898 V	0x1F3	1.949 V
0x0684 [15:0]	L0_CMD_VOUT_OV_WARN_LIMIT	0x1E4	1.891 V	0x1E6	1.898 V
0x0686 [15:0]	L0_CMD_VOUT_UV_WARN_LIMIT	0x1B6	1.711 V	0x1B3	1.699 V
0x0688 [15:0]	L0_CMD_VOUT_UV_FAULT_LIMIT	0x1B3	1.699 V	0x1A6	1.648 V
0x13 SW B:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x13_Aug_2)	Meaning (0x13_Aug_2)
0x0A80 [15:0]	L1_CMD_VOUT_OV_FAULT_LIMIT	0x140	1.250 V	0x14C	1.297 V
0x0A84 [15:0]	L1_CMD_VOUT_OV_WARN_LIMIT	0x143	1.262 V	0x140	1.250 V
0x0A86 [15:0]	L1_CMD_VOUT_UV_WARN_LIMIT	0x124	1.141 V	0x126	1.148 V
0x0A88 [15:0]	L1_CMD_VOUT_UV_FAULT_LIMIT	0x126	1.148 V	0x11A	1.102 V
0x13 SW C:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x13_Aug_2)	Meaning (0x13_Aug_2)
0x0E84 [15:0]	L2_CMD_VOUT_OV_WARN_LIMIT	0x129	1.160 V	0x126	1.148 V
0x0E86 [15:0]	L2_CMD_VOUT_UV_WARN_LIMIT	0x10C	1.047 V	0x10D	1.051 V
0x0E88 [15:0]	L2_CMD_VOUT_UV_FAULT_LIMIT	0x10D	1.051 V	0x100	1.000 V
0x13 SW D:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x13_Aug_2)	Meaning (0x13_Aug_2)
0x1280 [15:0]	L3_CMD_VOUT_OV_FAULT_LIMIT	0xE6	0.898 V	0xF3	0.949 V
0x1284 [15:0]	L3_CMD_VOUT_OV_WARN_LIMIT	0xE4	0.891 V	0xE6	0.898 V
0x1286 [15:0]	L3_CMD_VOUT_UV_WARN_LIMIT	0xCF	0.809 V	0xCD	0.801 V
0x1288 [15:0]	L3_CMD_VOUT_UV_FAULT_LIMIT	0xCD	0.801 V	0xC0	0.750 V
0x128C [15:0]	L3_CMD_IOUT_OC_FAULT_LIMIT	0xD870	3.500 A	0xD880	4.000 A
0x1294 [15:0]	L3_CMD_IOUT_OC_WARN_LIMIT	0xD860	3.000 A	0xD878	3.750 A

Device 0x14 file changes:

0x14 Device - Rocky PMIC file changes: March to August 2019:					
0x14 SW A:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x14_Aug_2)	Meaning (0x14_Aug_2)
0x0680 [15:0]	L0_CMD_VOUT_OV_FAULT_LIMIT	0x1E6	1.898 V	0x1F3	1.949 V
0x0684 [15:0]	L0_CMD_VOUT_OV_WARN_LIMIT	0x1E4	1.891 V	0x1E6	1.898 V
0x0686 [15:0]	L0_CMD_VOUT_UV_WARN_LIMIT	0x1B6	1.711 V	0x1B3	1.699 V
0x0688 [15:0]	L0_CMD_VOUT_UV_FAULT_LIMIT	0x1B3	1.699 V	0x1A6	1.648 V
0x068C [15:0]	L0_CMD_IOUT_OC_FAULT_LIMIT	0xD828	1.250 A	0xD838	1.750 A
0x0694 [15:0]	L0_CMD_IOUT_OC_WARN_LIMIT	0xD824	1.125 A	0xD830	1.500 A
0x14 SW B:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x14_Aug_2)	Meaning (0x14_Aug_2)
0x0A80 [15:0]	L1_CMD_VOUT_OV_FAULT_LIMIT	0xE6	0.898 V	0xF3	0.949 V
0x0A84 [15:0]	L1_CMD_VOUT_OV_WARN_LIMIT	0xE4	0.891 V	0xE6	0.898 V
0x0A86 [15:0]	L1_CMD_VOUT_UV_WARN_LIMIT	0xCF	0.809 V	0xCD	0.801 V
0x0A88 [15:0]	L1_CMD_VOUT_UV_FAULT_LIMIT	0xCD	0.801 V	0xC0	0.750 V
0x14 SW C:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x14_Aug_2)	Meaning (0x14_Aug_2)
0x0E84 [15:0]	L2_CMD_VOUT_OV_WARN_LIMIT	0x376	3.461 V	0x373	3.449 V
0x0E86 [15:0]	L2_CMD_VOUT_UV_WARN_LIMIT	0x324	3.141 V	0x326	3.148 V
0x0E88 [15:0]	L2_CMD_VOUT_UV_FAULT_LIMIT	0x333	3.199 V	0x31A	3.102 V
0x14 SW D:		Former Value:		New Value:	
Address	Register Name	Data (IRPS5401 R3)	Meaning (IRPS5401 R3)	Data (0x14_Aug_2)	Meaning (0x14_Aug_2)
0x1280 [15:0]	L3_CMD_VOUT_OV_FAULT_LIMIT	0xE6	0.898 V	0xF3	0.949 V
0x1284 [15:0]	L3_CMD_VOUT_OV_WARN_LIMIT	0xE4	0.891 V	0xE6	0.898 V
0x1286 [15:0]	L3_CMD_VOUT_UV_WARN_LIMIT	0xCF	0.809 V	0xCD	0.801 V
0x1288 [15:0]	L3_CMD_VOUT_UV_FAULT_LIMIT	0xCD	0.801 V	0xC0	0.750 V