				Validation			
Key	General	Response	Comments		Linaro comments	Final Results (Linaro)	Validation Test Description
	Name of the board	НіКеу					
	Email address (primary)						
	Email addresses (secondary)						
	Target Specification	CE v1.0					
					HDMI connector overhangs		
					the board edge		
					board thickness is 1mm		
					there is capacitor which height is 7.5mm above the to of the		
					board		
					Overall thickness fits 12mm		
					Vendor response: Because		
					Linaro use the engineering		
					version board for the compliance test. In the		
					production version, LeMaker		
					already change the HDMI		
					connector to a short one and		
					also change the capacity to a		
					short one. Now on the		
					production version, the form factor is already right.		
					The connector starts 9.68mm		
					from the edge of the board.		
					So the center of the is more		
					than 1mm further from the		
					edge than spec allows. The		
					worst thing is that it varies from board to board.		
					Vendor response: This will be		
					fixed in next batch of		
	Form Factor	CE v1.0 (standard) - 85 x	+/- 0.25mm error margin allowed	Fail	production units. [1]	Waived	Using 3D templates for the appropriate form-factor
Kau	Desumentation	D	Commonte	Validation Results (Linaro)	Linaro comments		Validation Test Description
Key	Documentation Board Schematic published	Response Yes	Comments	Pass	https://github.com/96boards/c		Validation Test Description
	· · · · · · · · · · · · · · · · · · ·	Yes	Board reference manual should follow template		https://github.com/96boards/c		
		Yes	SoC TRM published as per quidelines	Pass	https://github.com/96boards/do		
	soc technical reference published	Tes	SOC TRM published as per guidelines	Pd55	https://github.com/96b0arus/doo	<u>u</u>	
				Validation			
Key	Memory and Storage	Response	Comments		Linaro comments	Final Results (Linaro)	Validation Test Description
_	Onboard DRAM (GB)	. 1	CE: >= 0.5GB; EE: >= 1GB or DIMM	Pass	2G version available	Pass	
	Additional memory sockets			Ignored			
	SD Card	microSDHC	CE: Mandatory	Pass			
	Boot from SD Card?		-	Pass			
	Boot ROM		CE: optional, only if SD card is not bootable	Ignored			
	Boot ROM size (MB)		CE: 8MB (optional)	Ignored			
	Onboard Flash storage		Optional	Pass			
	Onboard Flash storage size (GB)		Optional	Pass			
	SATA interface	None	Optional	Ignored			
				Validation			
Key	Networking	Response	Comments		Linaro comments	Final Results (Linaro)	Validation Test Description
		802.11 g/n/ac		Pass			
	Bluetooth 4.0 LE	Yes		Pass			
				14-11-1-11			
Key	Debugging	Response	Comments	Validation Results (Linaro)	Linaro comments	Final Results (Linzco)	Validation Test Description
Rey	UART 1 (LS expansion interface)		default mandatory UART	Pass	Lindio comments	i mat Results (Lindfo)	ימווסבוטה וכשר שכשרוףנוטה
		103		1 033			
	· · · · · ·		2				
	UART 2 (LS expansion interface)		CE: optional				
	UART 2 (LS expansion interface)	Yes	2	Pass			
	· · · · · ·	Yes Yes	2	Pass Pass			

	BT LED) Yes		Pass			
	DATL	G Yes	Optional	Pass			
				Validation			
Key	USB	Response	Comments		Linaro comments	Final Results (Linaro)	Validation Test Description
,	Port 1 - Host (Protocol			Pass			
	Port 1 - Host (Connector			Pass			
	Port 2 - Host (Protocol	/ 21		Pass			
	Port 2 - Host (Connector	/ //		Pass			
	Port 3 - Slave (Protocol			Pass			
	Port 3 - Slave (Connector) micro-B (for slave-only)		Pass			
	Port 4 - Host (Protocol	.) USB 2.x			not tested		
	Port 4 - Host (Connector) Other			not tested		
				Validation			
Key	Display	Response	Comments	Results (Linaro)	Linaro comments	Final Results (Linaro)	Validation Test Description
-	Display Type		CE: Audio support for at least 1 channel is manda			Pass	
		r Type A (full-size)		Pass		Pass	
	MIPI DSI port on HS expansion bu				not tested		
	MIPI DSI port on His expansion Dd. MIPI DSI lane				not tested		
	MIPT DSI lane	3 4			nottested		
				Validati			
Kau	6	Deserves	Community	Validation	Linne commente	Final Decults (Lister)	Validation Test Description
Key	Camera MIDI CSI 2 aast	Response	Comments		Linaro comments	rinal Results (Linaro)	Validation Test Description
	MIPI CSI-2 port	<u>é</u>	(Review) CE: Port 1 should be on CSI0 port (1-4 la	1			
			- · ·	Validation			
Key	Audio	Response	Comments		Linaro comments		Validation Test Description
	Audio channels (BT		CE: I2S/PCM channel should be provided on LS ex		I2S not tested	Pass	
	Audio channels (Display	/) 2		Pass		Pass	
				Validation			
Key	DC Power	Response	Comments	Results (Linaro)	Linaro comments	Final Results (Linaro)	Validation Test Description
	Power source	e DC Power Jack (8-18V)		Pass		Pass	
				Validation			
Key	Buttons / Switches / Jumpers	Response	Comments		Linaro comments		Validation Test Description
	Power on/of		Mandatory	Pass		Pass	
	Hard rese	t	Mandatory				
	Auto power u		Mandatory	Pass		Pass	
	USB mode change	ז Through Jumper				PdSS	
	USD IIIOUE CIIalige	p Through Jumper e NA					
			Optional, to change mode of the OTG port	Pass		Pass	
				Pass			
Key				Pass Validation	Linaro comments	Pass	Validation Test Description
Key	Expansion header	e NA Response	Optional, to change mode of the OTG port Comments	Pass Validation Results (Linaro)	Linaro comments	Pass	Validation Test Description
Key	Expansion header Low-speed expansion heade	e NA Response	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec	Pass Validation Results (Linaro) Pass	Linaro comments	Pass	Validation Test Description
Key	Expansion header	e NA Response	Optional, to change mode of the OTG port Comments	Pass Validation Results (Linaro)	Linaro comments	Pass	Validation Test Description
Кеу	Expansion header Low-speed expansion heade	e NA Response	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec	Pass Validation Results (Linaro) Pass Pass	Linaro comments	Pass	Validation Test Description
	Expansion header Low-speed expansion heade High-speed expansion heade	e NA Response rr Yes fr Yes	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory	Pass Validation Results (Linaro) Pass Pass Validation		Pass Final Results (Linaro)	
Key Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous	e NA Response r Yes r Yes Response	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro)	Linaro comments	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description Validation Test Description
	Expansion header Low-speed expansion heade High-speed expansion heade	e NA Response r Yes r Yes Response	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory	Pass Validation Results (Linaro) Pass Pass Validation		Pass Final Results (Linaro) Final Results (Linaro)	
	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous	e NA Response r Yes r Yes Response	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass	Linaro comments	Pass Final Results (Linaro) Final Results (Linaro)	
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far	e NA Response rr Yes fr Yes Response n +5V	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments	Pass Validation Results (Linaro) Pass Pass Validation Pass Validation	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far	e NA Response r Yes r Yes Response n +5V Response	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro)	Linaro comments	Pass Final Results (Linaro) Final Results (Linaro)	
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far	e NA Response rr Yes fr Yes Response n +5V	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments oards/linux.git	Pass Validation Results (Linaro) Pass Pass Validation Pass Validation	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far Software Kernel git tree UR	e NA Response r Yes r Yes Response h +5V Response L https://github.com/96be	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments oards/linux.git git commit:	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro)	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far	e NA Response r Yes Response n +5V Response L https://github.com/96be n	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments git commit: Sa1ed9ac6d75F9aaa4e5e68abe159f353d38ea8	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Fai Software Kernel git tree URI Kernel version	e NA Response Yes Yes Response Response +5V Response L https://github.com/96be	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments oards/linux.git git commit: 5a1ed9ac6d75f9aaa4e5e68abe159f353d38ea8 6	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far Software Kernel git tree UR	e NA Response Yes Yes Response Response +5V Response L https://github.com/96be	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments git commit: Saited3ac6d75F9aaa4e5e68abe159f353d38ea8	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Fai Software Kernel git tree URI Kernel version	e NA Response Yes Yes Response Response +5V Response L https://github.com/96be	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments oards/linux.git git commit: Sa1ed9ac6d75f9aaa4e5e68abe159f353d38ea8 6 Level definitions as per spec	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far Software Kernel git tree UR Kernel version Kernel compliance Leve	e NA Response r Yes Response n +5V Response L https://github.com/96be v4.4 Level 4	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments adds/linux.git git commit: Sa1ed9ac6d75f9aaa4e5e68abe159f353d38ea8 6 Level definitions as per spec According to the spec, it is recommended for	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Fai Software Kernel git tree URI Kernel version	e NA Response Yes Yes Response Response +5V Response L https://github.com/96be v4.4 Level 4 e	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments oards/linux.git git commit: Sa1ed9ac6d75f9aaa4e5e68abe159f353d38ea8 6 Level definitions as per spec According to the spec, it is recommended for everything after SoC reset to be available as	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous Software Software Kernel git tree UR Kernel version Kernel compliance Leve	e NA Response r Yes r Yes Response h +5V Response L https://github.com/96be v4.4 l Level 4 e Yes	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments Comments Saled9ac6d75f9aaa4e5e68abe159f353d38ea8 6 Level definitions as per spec According to the spec, it is recommended for everything after SoC reset to be available as open source	Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass Pass Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description
Key	Expansion header Low-speed expansion heade High-speed expansion heade Miscellaneous External Far Software Kernel git tree UR Kernel version Kernel compliance Leve	e NA Response Yes Response Response h +5V Response h +5V Response v4.4 L Level 4 Yes L https://github.com/96bd	Optional, to change mode of the OTG port Comments Signals to be exposed as per spec CE: mandatory Comments Comments Comments Saled9ac6d75f9aaa4e5e68abe159f353d38ea8 6 Level definitions as per spec According to the spec, it is recommended for everything after SoC reset to be available as open source	Pass Validation Results (Linaro) Pass Pass Validation Results (Linaro) Pass Validation Results (Linaro) Pass	Linaro comments both 5V and 12V fans are supp	Pass Final Results (Linaro) Final Results (Linaro)	Validation Test Description

	User can update bootloader	Yes		Pass				
	Possibility to unbrick the board w/o							
	special hardware	Yes		Pass	https://bugs.96boards.org/sho			
		Needs userspace binary						
	Camera ISP							
	DSP							
	Multimedia	NA						
		_		Validation				
Key	Software Functionality	Response	Comments	Results (Linaro)	Linaro comments	Final Results (Linaro)	Validation Test Description	
	Boot to Graphical UI	Yes	both Debian and AOSP builds work fine	Pass				
	Graphics acceleration using SoC GPU	Yes		Pass				
ndard	set of Distribution end user applications	Yes		Pass				
	Video playback support for media files	Yes		Pass				
edia fil	es via A2DP Bluetooth and display audio			Pass				
	Networking using all onboard							
	interfaces and USB ethernet			_				
	interfaces			Pass				
	Software power shutdown and reboot options			Pass				
	Appropriate activity LEDs (e.g.	105		F 035				
	Bluetooth, WiFi)	Yes		Pass				
	Additional storage is usable: eMMC							
	(if fitted), SD, SATA, USB			Pass				

[1] Ad:

Because Linaro use the engineering version board for the compliance test. In the production version, LeMaker already change the HDMI connector to a short one and also change the capacity to a short one. Now on the production version, the form factor is already right.