



ConnectCore 95

SMTPlus® SOM

Hardware Reference Manual

Revision history—90002629

Revision	Date	Description
1P	December 2025	Preliminary version only for first prototypes.
2P	June 2026	Updated IOMUX tables based on the second spin of the module; updated transmit power table; merged data rates tables into one; replaced power interfaces diagram; updated PMIC regulators content for second spin; extended input power rails table; modified output power rails table.
3P	September 2026	Modified AG18, AN24, and AN25 pad comments; modified y index of all LPTMRx_ALTy functionality; updated BOOT0 and BOOT1 signal names; added BOOT[3:0 caution; removed mentions of LDO1 and marked pad AH7 as reserved; replaced reference power diagram.

Trademarks and copyright

Digi, Digi International, and the Digi logo are trademarks or registered trademarks in the United States and other countries worldwide. All other trademarks mentioned in this document are the property of their respective owners.

© 2026 Digi International Inc. All rights reserved.

Disclaimers

Information in this document is subject to change without notice and does not represent a commitment on the part of Digi International. Digi provides this document “as is,” without warranty of any kind, expressed or implied, including, but not limited to, the implied warranties of fitness or merchantability for a particular purpose. Digi may make improvements and/or changes in this manual or in the product(s) and/or the program(s) described in this manual at any time.

Warranty

To view product warranty information, go to the following website:

www.digi.com/howtobuy/terms

Customer support

Gather support information: Before contacting Digi technical support for help, gather the following information:

- Product name and model
- Product serial number (s)
- Firmware version

Operating system/browser (if applicable)

Logs (from time of reported issue)

Trace (if possible)

Description of issue

Steps to reproduce

Contact Digi technical support: Digi offers multiple technical support plans and service packages. Contact us at +1 952.912.3444 or visit us at www.digi.com/support.

Feedback

To provide feedback on this document, email your comments to

techcomm@digi.com

Include the document title and part number (ConnectCore 95 SMTPlus® SOM, 90002629 3P) in the subject line of your email.

Contents

About the ConnectCore 95 SMTPlus SOM

Features and functionality	5
Safety instructions	8
Block diagrams	8
ConnectCore 95 module	8
i.MX95 application processor	9
Power interfaces	10
Reference power diagram	10
System-on-module power architecture	10
Electrical characteristics	11
Bootstrap	13
Wireless interfaces	15
WLAN IEEE 802.11a/b/g/n/ac/ax	15
RF channels	19
2.4 GHz	19
5 GHz	20
Transmit power	22
Antenna ports	22
Bluetooth	23

Module pinout

External signals and pin multiplexing	25
Castellated pad signals and multiplexing	26
Extended LGA signals and multiplexing	40

Module specifications

Mechanical specifications	82
Environmental specifications	82
Socket options	82

About the ConnectCore 95 SMTPlus SOM

The Digi ConnectCore® 95 SMTPlus SOM platform is a highly integrated, cost-effective, connected, secure embedded solution, built on the i.MX95 MPU family. It integrates memory, power management, pre-certified wireless connectivity, and advanced Digi TrustFence® device security with a complete, open-source Linux software platform based on the Yocto Project.

Features and functionality

The ConnectCore 95 system-on-module is based on the i.MX95 processor from NXP. This processor offers a number of interfaces, most of them multiplexed and not available simultaneously. The module has the following features:

- Six cores Arm Cortex-A55 MPCore platform:
 - Frequency operating at up to 2 GHz.
 - Arm v8.2 fully 64-bit capable.
 - L1, L2 and L3 cache with ECC.
 - System debug:
 - Arm CoreSight debug and trace technology.
 - Trace Port Interface Unit (TPIU) to support off-chip real-time trace.
 - 4-pin JTAG and SWD debug interfaces.
- Arm Cortex-M33 and Cortex-M7 platform:
 - Cortex-M33 frequency operating up to 333 MHz.
 - Cortex-M7 frequency operating up to 800 MHz.
 - Arm v8-M supporting Trustzone-M.
 - 16 KB + 16/32 KB + 32 KB cache (ECC).
 - 256/512 KB Tightly Coupled Memory (TCM)/on-chip SRAM (ECC).
- Neural processing unit (NPU):
 - 2 TOPS at 1 GHz and can run at reduced performance at 800 MHz to save power.
 - 1 MB of SRAM embedded with the NPU, but it is available for other SoC usage when not using for ML purposes.
- Graphics:
 - Arm Mali-G310 Graphic Processing Unit (GPU):
 - 3D GPU supporting 64 GFLOPs FP32.
 - OpenGL ES 3.2.
 - Vulkan 1.3.
 - OpenCL 3.0.
 - Video Processors:

- 4Kp60 H.265 and H.264 encode and decode.
- JPEG Encoder.
- JPEG Decoder.
- Connectivity:
 - x2 1-lane PCIe Gen 3.0.
 - x1 USB 3.0 Type C with PHY.
 - x1 USB 2.0 with PHY.
 - x2 1 Gbps Ethernet ports with Time Sensitive Networking (TSN) capabilities.
 - x1 10 Gbps Ethernet port with Time Sensitive Networking (TSN) capabilities.
 - IEEE 1588 for sync and EEE.
 - x5 CAN-FD
 - x2 32-pin FLEXIO interfaces.
 - x8 UART.
 - x8 LPSPI.
 - x8 LPI2C.
 - x1 Octal SPI, including support for SPI NOR and SPI NAND memories.
 - FlexSPI_FLR.
- Multimedia:
 - Display Controller:
 - x1 MIPI-DSI (4-lane, 2.5 Gbps/lane), supporting 4kp30 or 3840x1440p60
 - x2 1080p60 LVDS Tx (x2 4-lane or x1 8-lane).
 - 16 kByte of SRAM, but it is available for other SoC usage when not using for 2D blitter purposes.
 - MIPI-CSI and ISP (x2 4-lane, 2.5 Gbps/lane) with PHY (one multiplexed with DSI):
 - Up to x1 4Kp60 fps (if one MIPI CSI is enabled), x2 4Kp30, x4 1080p60 or x8 1080p30
 - Up to x8 cameras with MIPI virtual channels.
 - 96 kByte of SRAM, but it is available for other SoC usage when not using for ISP purposes.
 - Audio:
 - x5 SAI interfaces.
 - 17-lane I2S TDM (32-bit at 768 kHz frequency).
 - SPDIF Rx and SPDIF Tx.
 - 8-channel PDM Microphone Interface (MICFIL).
 - x2 Medium Quality Sound (MQS).
- Timer and PWM:
 - x2 Low Power Periodical Interrupt Timers (LPIT):
 - 4-channel.
 - 4 external trigger sources.
 - Generic 32-bit resolution timer.
 - Periodical interrupt generation.

- x6 Timer/PWM modules (TPM):
 - Prescaler divide by 1/2/4/8/16/32/64/128
 - 16-bit counter, support free-running counter or module counter mode, counting up or down.
 - x6 channels that can be configured for input capture, output compare, edge-aligned PWM mode or center-aligned PWM mode.
- x2 Low-power Timers (LPTMR).
- x5 WatchDog modules (WDOG).
- x1 System counter (SYS_CTR).
- x1 Timestamp Timer (TSTMR).
- x1 General Purpose Timer (GPT).
- Analog:
 - FRO Clock Generator (FRO_TUNER).
 - x2 Temperature Sensor (TEMPSENSE).
 - 16-channel, 12-bit Analog-to-Digital Converter (SAR_ADC).
 - x1 Trigger Mux (TRIGMUX) to configure the trigger inputs for various peripherals.
- Safety:
 - Integrated functional safety.
 - Targeting ISO26262 ASIL-B and IEC61508 SIL2 compliance.
- Security:
 - Trusted Resource Domain Controller (TRDC).
 - Supports up to 16 resource domains.
 - Arm TrustZone (TZ) architecture.
 - Secure and trusted access control.
 - EdgeLock Secure Enclave.
 - Evolved on-die security with run-time attestation, silicon root of trust, trust provisioning, fine-grain key management augmented by extensive crypto services.
- Up to 16 GB, 32-bit LPDDR5 memory.
- Up to 32 GB, 8-bit eMMC memory.
- Power management:
 - PF0900 Power Management IC (PMIC):
 - x5 Step down regulators.
 - x3 Linear regulators.
 - PF5302 Buck converter.
 - PF5301 Buck converter.
- IEEE 802.11 a/b/g/n/ac/ax WLAN interface.
- Bluetooth version 5.3.

Safety instructions

- The ConnectCore 95 SMTPlus SOM cannot be guaranteed operation due to the radio link and so should not be used for interlocks in safety critical devices such as machines or automotive applications.
- The ConnectCore 95 SMTPlus SOM has not been approved for use in (this list is not exhaustive):
 - nuclear applications
 - explosive or flammable atmospheres
- There are no user serviceable components inside the ConnectCore 95 SOM. Do not modify the ConnectCore 95 in any way. Modifications may exclude the SMTPlus SOM from any warranty and can cause the ConnectCore 95 to operate outside of regulatory compliance for a given country, leading to the possible illegal operation of the radio.
- Use industry standard ESD protection when handling the ConnectCore 95 SMTPlus SOM.
- Take care while handling to avoid electrical damage to the PCB and components.
- Do not expose ConnectCore 95 SMTPlus SOM to water or moisture.
- Use this product with the antennas specified in the ConnectCore 95 SOM user guides.
- The end user must be told how to remove power from the ConnectCore 95 SMTPlus SOM or to locate the antennas 20 cm from humans or animals.

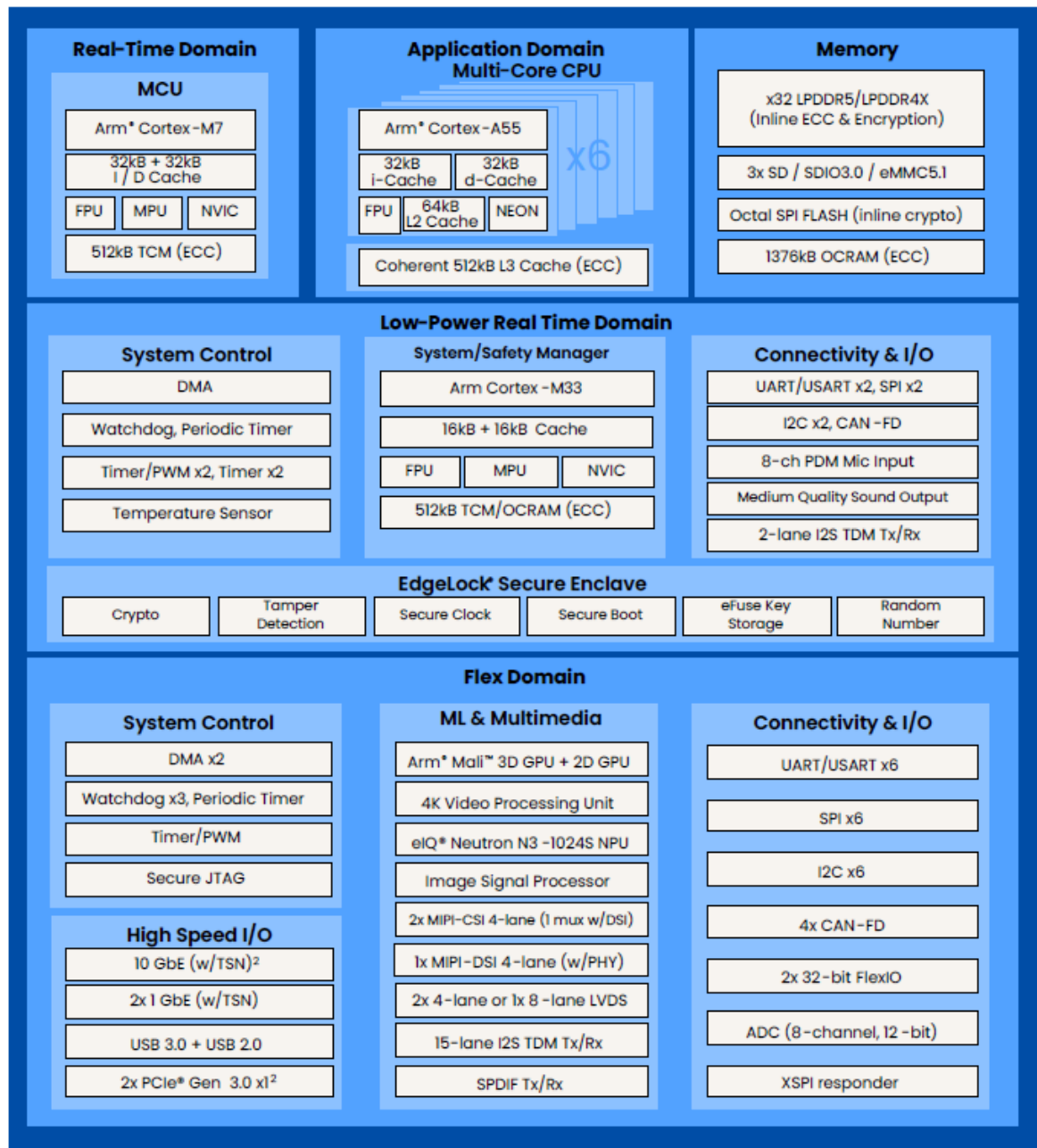
Block diagrams

The figures below show block diagrams of the ConnectCore 95 module and of the NXP i.MX95 application processor.

ConnectCore 95 module

To be added in a subsequent revision of this manual.

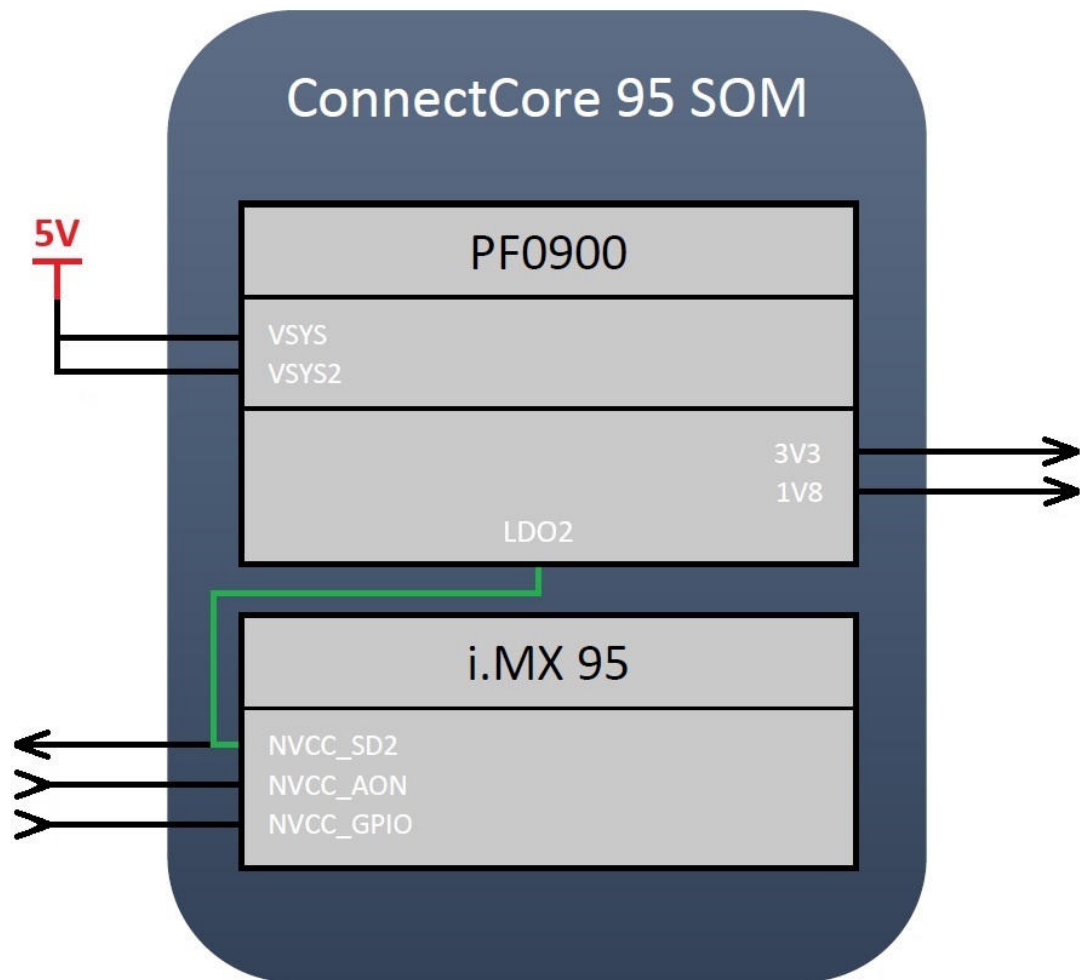
i.MX95 application processor



Power interfaces

Reference power diagram

The following diagram represents the power architecture of the ConnectCore 95 module in a typical application:



System-on-module power architecture

The ConnectCore 95 requires two primary power supply inputs: VSYS and VSYS2. These supplies are the input power supplies to the on-module NXP PF0900, PF5302 and PF5301 power management ICs (PMICs), which generates all required supply voltages for the module as well as the external interfaces.

The following table summarizes the PMICs regulators on the ConnectCore 95 SOM:

PMIC	Regulator	SOM power rail name	Input power supply	Internally used	Externally available
PF0900	BUCK1	3V3	VSYS	YES	YES
	BUCK2	-	VSYS2	YES	NO
	BUCK3	1V8	VSYS2	YES	YES
	BUCK4	-	VSYS2	YES	NO
	BUCK5	-	VSYS2	YES	NO
	LDO1	LDO1	3V3	NO	NO
	LDO2	NVCC_SD2	3V3	YES	YES
	LDO3	-	-	YES	NO
PF5302		-	VSYS	YES	NO
PF5301		-	VSYS	YES	NO

In addition to the input power supplies of the PMIC, other power domains of the SOM must also be set externally. This allows power management flexibility so you can adapt the input voltage of the different interfaces. The following table lists the input power rails that must be powered externally to the SOM together with the devices/power domains they power:

Input power rail	Internally connected to	Description
NVCC_AON	NVCC_AON pins of the i.MX95 CPU	Dedicated CPU IO ring power supply
NVCC_GPIO	NVCC_GPIO pins of the i.MX95 CPU	Dedicated CPU IO ring power supply

Electrical characteristics

Input power rails

The following table lists the electrical specifications of all input power rails for the ConnectCore 95:

Device	SOM power rail		Input voltage (V)		
			Minimum	Typical	Maximum
PMIC	VSYS		3.7	5	5.5
	VSYS2		3.0	5	5.5
CPU	NVCC_AON	1.8V mode	1.65	1.8	1.95
		3.3V mode	3	3.3	3.45
	NVCC_GPIO	1.8V mode	1.65	1.8	1.95
		3.3V mode	3	3.3	3.45

Output power rails

The following table lists the electrical specifications of the output power rails for the ConnectCore 95:

SOM power rail	Used internally in the SOM	Output voltage			Accuracy (%)		Continuous output current (mA) ¹	Startup time (µs)	
		Min	Typ	Max	Min	Max		Typ	Max
3V3	YES	-	3.3	-	-3	3	3500	-	2000
1V8	YES	-	1.8	-	-3	3	2500	32	925
NVCC_SD2	YES	-	1.8/3.3	-	-2	2	200	140	520

Note Some of the electrical characteristics may depend on the configuration and operation mode of the different regulators. For a complete description of the electrical characteristics of the different output power rails (PMIC regulators), see the PF0900 Datasheet.

¹ The maximum output current involves both external and internal circuitry. For those regulators that are used internally in the SOM, the current available outside will be lower.

Bootstrap

The ConnectCore 95 module can be configured to boot from different devices and interfaces. The boot mode can be selected in two ways:

- Through the boot mode pins (recommended for development).
- Overridden by fuses (recommended for production).

When using the boot mode pins, the boot mode is determined by the binary value stored in the internal BOOT_MODE register. The boot mode is initialized by sampling the BOOT_MODE[3:0] inputs on the rising edge of POR_B. After these inputs are sampled, the subsequent states do not affect BOOT_MODE internal register value.

The BOOT_MODE[3:0] bits are available in the following signals of the SOM:

Signal	Boot mode
UART1_TX	BOOT0
UART2_TX	BOOT1
SPI1_CS0	BOOT2
SPI1_SCK	BOOT3

Each of the BOOT[3:0] signals are connected to two different pads of the SOM:



- UART1_TXD: AB1 and W29
- UART2_TXD: AC1 and F11
- SPI1_CS0: AD1 and C17
- SPI1_SCK: AE1 and E17

Pads AB1, AC1, AD1 and AE1 are defined as the boot lines. Do not drive simultaneously these lines from the different pads to avoid collision.

The following table lists the different boot modes available on the ConnectCore 95 module:

BOOT core	BOOT_MODE[3:0]	Boot mode
-	x000	Internal fuses
Cortex-A55	0001	Serial downloader
	0010	USDHC1 8-bit eMMC 5.1
	0011	USDHC2 4-bit SD3.0
	0100	FlexSPI serial NOR
	0101	FlexSPI serial NAND 2K page
	0110	FlexSPI serial NAND 4K page
	0111	Reserved
Cortex-M33	1001	Serial downloader
	1010	USDHC1 8-bit eMMC 5.1
	1011	USDHC2 4-bit SD3.0
	1100	FlexSPI serial NOR
	1101	FlexSPI serial NAND 2K page
	1110	FlexSPI serial NAND 4K page
	1111	Reserved

Wireless interfaces

The ConnectCore 95 System-on-module combines a wireless local area network (WLAN) and Bluetooth dual solution to support IEEE802.11 a/b/g/n/ac/ax WLAN standards and Bluetooth 5.3, enabling seamless integration of WLAN/Bluetooth and Low Energy technology. Digi also offers a non-wireless variant of the ConnectCore 95 module.

The following sections include specifications for the wireless interfaces available on the ConnectCore 95 module.

WLAN IEEE 802.11a/b/g/n/ac/ax

The following sections specify the performance of the WLAN IEEE 802.11a/b/g/n/ac/ax interface on the ConnectCore 95 module.

Modulation and data rates

The following tables list modulation values for the ConnectCore 95 module, which supports the following WLAN standards:

Mode	Modulation & coding	Rate
802.11b	DBPSK	1 Mbps
	DQPSK	2 Mbps
	CCK	5.5 Mbps
	CCK	11 Mbps

Mode	Modulation & coding	Rate
802.11ga	BPSK-1/2	6 Mbps
	BPSK-3/4	9 Mbps
	QPSK-1/2	12 Mbps
	QPSK-3/4	18 Mbps
	16QAM-1/2	24 Mbps
	16QAM-3/4	36 Mbps
	64QAM-2/3	48 Mbps
	64QAM-3/4	54 Mbps
802.11n	BPSK-1/2	MCS0
	QPSK-1/2	MCS1
	QPSK-3/4	MCS2
	16QAM-1/2	MCS3
	16QAM-3/4	MCS4
	64QAM-2/3	MCS5
	64QAM-3/4	MCS6
	64QAM-5/6	MCS7

Mode	Modulation & coding	Rate
802.11ac	BPSK-1/2	MCS0
	QPSK-1/2	MCS1
	QPSK-3/4	MCS2
	16QAM-1/2	MCS3
	16QAM-3/4	MCS4
	64QAM-2/3	MCS5
	64QAM-3/4	MCS6
	64QAM-5/6	MCS7
	256QAM-3/4	MCS8
	256QAM-5/6	MCS9
802.11ax	BPSK-1/2	MCS0
	QPSK-1/2	MCS1
	QPSK-3/4	MCS2
	16QAM-1/2	MCS3
	16QAM-3/4	MCS4
	64QAM-2/3	MCS5
	64QAM-3/4	MCS6
	64QAM-5/6	MCS7
	256QAM-3/4	MCS8
	256QAM-5/6	MCS9
	1024QAM-3/4	MCS10
	1024QAM-5/6	MCS11

Data rates (Mbps)

Standard	Bandwidth	Guard interval	Data rate (Mbps)							
			1 Mbps	11 Mbps	6 Mbps	54 Mbps	MCS0	MCS7	MCS9	MCS11
802.11b/g/a/n/ac	20 MHz	0.8 us	1	11	6	54	6.5	65		
		0.4 us	1	11	6	54	7.2	72.2		
	40 MHz	0.8 us					13.5	135	180	
		0.4 us					15	150	200	
	80 MHz	0.8 us					29.3	292.5	390	
		0.4 us					32.5	325	433.3	
802.11ax	20 MHz	3.2 us					7.3	73.1	97.5	121.9
		1.6 us					8.1	81.3	108.3	135.4
		0.8 us					8.6	86	114.7	143.4
	40 MHz	3.2 us					14.6	146.3	195	243.8
		1.6 us					16.3	162.5	216.7	270.8
		0.8 us					17.2	172.1	229.4	286.8
	80 MHz	3.2 us					30.6	306.3	408.3	510.4
		1.6 us					34	340.3	453.7	567.1
		0.8 us					36	360.3	480.4	600.5

RF channels

The ConnectCore 95 module supports the following frequency bands:

RF band	Ch. BW	Ch. spacing	Channel number (Center freq. MHz)
2.4 GHz	20 MHz	5 MHz	1(2412), 2(2417), 3(2422), 4(2427), 5(2432), 6(2437), 7(2442), 8(2447), 9(2452), 10(2457), 11(2462), 12(2467), 13(2472), 14(2484)
	40 MHz	5 MHz	3(2422), 11(2462)
5 GHz	20 MHz	20 MHz	36(5180), 40(5200), 44(5220), 48(5240), 52(5260), 56(5280), 60(5300), 64(5320), 100(5500), 104(5520), 108(5540), 112(5560), 116(5580), 120(5600), 124(5620), 128(5640), 132(5660), 136(5680), 140(5700), 144(5720), 149(5745), 153(5765), 157(5785), 161(5805), 165(5825)
	40 MHz	40 MHz	38(5190), 46(5230), 54(5270), 62(5310), 102(5510), 110(5550), 118(5590), 126(5630), 134(5670), 142(5710), 151(5755), 159(5795)
	80 MHz	80 MHz	42(5210), 58(5290), 106(5530), 122(5610), 138(5690), 155(5775)

Note Dependent upon regulatory bodies.

2.4 GHz

2.4 GHz band channel #	Center frequency (MHz)	EUROPE (ETSI)	NORTH AMERICA (FCC)	JAPAN
1	2412	✓	✓	✓
2	2417	✓	✓	✓

2.4 GHz band channel #	Center frequency (MHz)	EUROPE (ETSI)	NORTH AMERICA (FCC)	JAPAN
3	2422	✓	✓	✓
4	2427	✓	✓	✓
5	2432	✓	✓	✓
6	2437	✓	✓	✓
7	2442	✓	✓	✓
8	2447	✓	✓	✓
9	2452	✓	✓	✓
10	2457	✓	✓	✓
11	2462	✓	✓	✓
12	2467	✓	No	✓
13	2472	✓	No	✓
14	2484	No	No	802.11b only

5 GHz

5 GHz band channel #	Center frequency (MHz)	EUROPE (ETSI)	NORTH AMERICA (FCC)	JAPAN
36	5180	Indoors	✓	✓
40	5200	Indoors	✓	✓
44	5220	Indoors	✓	✓
48	5240	Indoors	✓	✓

5 GHz band channel #	Center frequency (MHz)	EUROPE (ETSI)	NORTH AMERICA (FCC)	JAPAN
52	5260	Indoors / DFS / TPC	DFS	DFS / TPC
56	5280	Indoors / DFS / TPC	DFS	DFS / TPC
60	5300	Indoors / DFS / TPC	DFS	DFS / TPC
64	5320	Indoors / DFS / TPC	DFS	DFS / TPC
100	5500	DFS / TPC	DFS	DFS / TPC
104	5520	DFS / TPC	DFS	DFS / TPC
108	5540	DFS / TPC	DFS	DFS / TPC
112	5560	DFS / TPC	DFS	DFS / TPC
116	5580	DFS / TPC	DFS	DFS / TPC
120	5600	DFS / TPC	DFS	DFS / TPC
124	5620	DFS / TPC	DFS	DFS / TPC
128	5640	DFS / TPC	DFS	DFS / TPC
132	5660	DFS / TPC	DFS	DFS / TPC
136	5680	DFS / TPC	DFS	DFS / TPC
140	5700	DFS / TPC	DFS	DFS / TPC
149	5745	SRD	✓	No Access
153	5765	SRD	✓	No Access
157	5785	SRD	✓	No Access
161	5805	SRD	✓	No Access
165	5825	SRD	✓	No Access

Note DFS = Dynamic Frequency Selection, **TPC** = Transmit Power Control, **SRD** = Short Range Devices 25 mW max power

Transmit power

The following table lists nominal transmit power values for the ConnectCore 95 module based on Murata specification.

RF band	Standard	Nominal Output power (dBm)
2.4 GHz	802.11b	18 (1 Mbps) - 18 (11 Mbps)
	802.11g	17 (6 Mbps) - 17 (54 Mbps)
	802.11n	16 (MCS0, HT20) - 16 (MCS7, HT20)
	802.11ax	14 (MCS0, HE20) - 12 (MCS11, HE20)
5 GHz	802.11a	16 (6 Mbps) - 16 (54 Mbps)
	802.11n	14 (MCS0, HT20) - 14 (MCS7, HT20) 14 (MCS0, HT40) - 14 (MCS7, HT40)
	802.11ac	14 (MCS0, VHT20) - 10 (MCS8, VHT20) 14 (MCS0, VHT40) - 10 (MCS9, VHT40) 14 (MCS0, VHT80) - 10 (MCS9, VHT80)
	802.11ax	12 (MCS0, HE20) - 9 MCS11 (HE20) 12 (MCS0, HE40) - 9 (MCS11, HE40) 12 (MCS0, HE80) - 9 (MCS11, HE80)
6 GHz	802.11a	12 (6 Mbps) - 12 (24 Mbps)
	802.11ax	11 (MCS0, HE20) - 9 (MCS11, HE20) 11 (MCS0, HE40) - 9 (MCS11, HE40) 11 (MCS0, HE80) - 9 (MCS11, HE80)

Note Output power values are subject to change.

Antenna ports

The ConnectCore 95 module has one antenna port on the module via a dedicated U.FL connector. The antenna port supports WLAN and Bluetooth functionality.

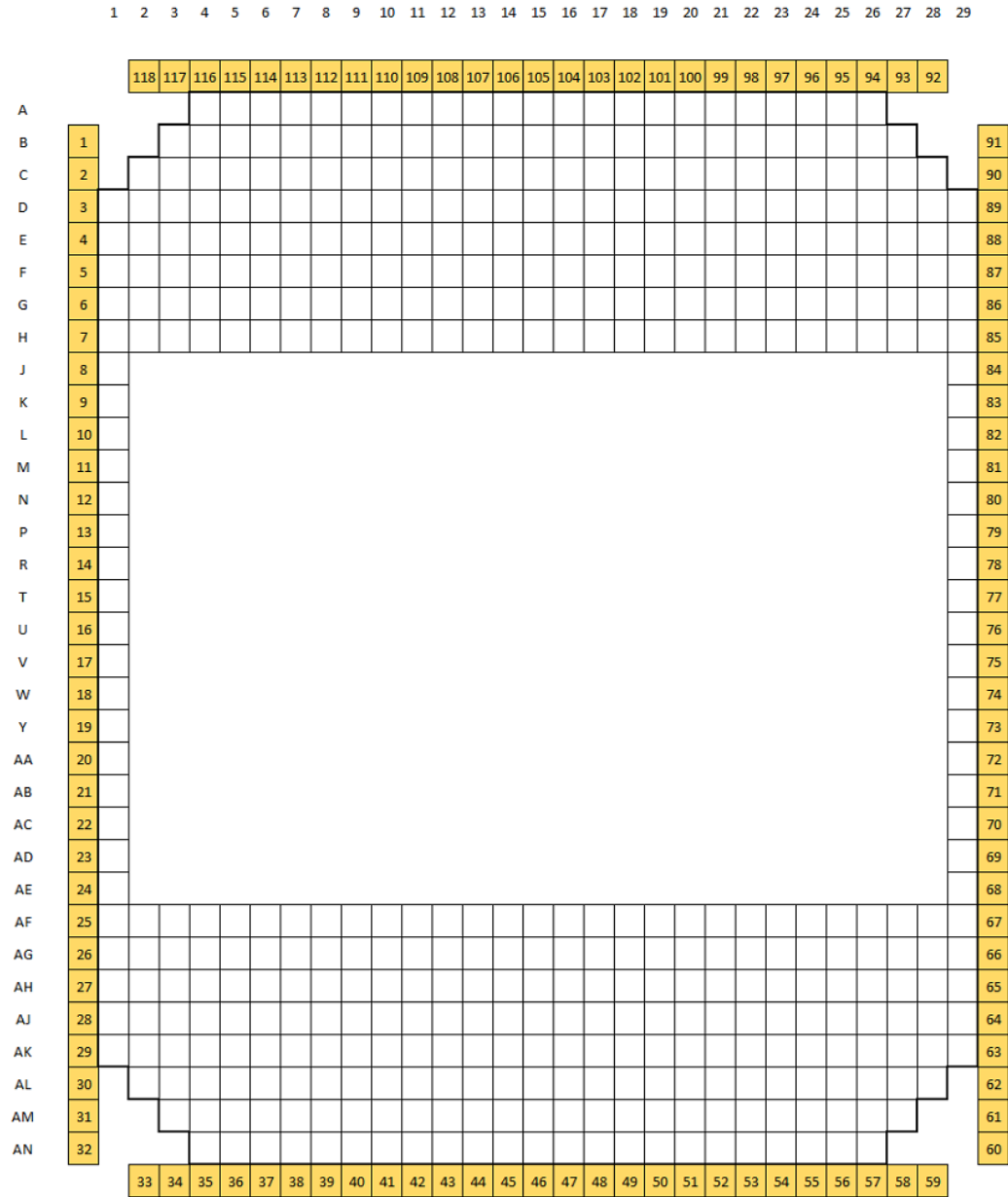
Bluetooth

The ConnectCore 95 module supports both Bluetooth and Bluetooth Low Energy protocols:

- Bluetooth 5.3 with all Bluetooth 4.2 optional features. Bluetooth class 1 and class 2 transmitter operation.
- Integrated WLAN-Bluetooth coexistence.

Module pinout

The ConnectCore 95 module has a mixed pad structure. The module provides 474 LGA pins, 118 of them connected to the peripheral castellated pads. The general layout can be found on the following diagram:



White cells: LGA pads

Orange cells: castellated pads

Note The diagram represents the module as seen from the top side with antenna on top-right corner.

External signals and pin multiplexing

The following tables provide the pinout information of the ConnectCore 95 module. For additional information related to the signals listed in the table, refer to the NXP i.MX95 technical documentation.

Note The Digi ConnectCore Smart IOMUX tool can dramatically simplify pin configuration and resolution. You can enter the list of interfaces required by your project and use the Smart IOMUX graphical interface to mock up configuration options, resulting in full pin assignment and device tree snippets that match your desired functionality. See the [Smart IOMUX User Guide](#) for more information and download instructions.

The microprocessor used on this module, like all CMOS devices, can be driven into a latch-up condition if any I/O pin is driven outside of its associated power rail. Care must be taken to:

- Never drive an I/O pin beyond its positive rail or below ground.
- Never drive an I/O pin from an external power source during the power-on or reset sequences.
- Never hot-swap the module or interrupt its ground connection to external circuitry.



Latch-up is a condition that can cause excessive current draw and result in excessive heating of the microprocessor or its power supplies. This excessive heating can permanently damage the microprocessor and/or its supporting components.

When you use an external supply on the carrier board supporting the ConnectCore 95 module, make sure this supply is NOT back driving i.MX95 I/Os while their power rails are not enabled. For example, this can happen when an external 3.3V supply is available on the carrier board and this supply powers components driven by i.MX95 I/Os. In this case, Digi recommends you enable the external power supply after internal 3.3V is enabled, or add the necessary protection circuitry to avoid back voltage (leakage).

Castellated pad signals and multiplexing

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
1	E4	SD2_RESET_B	SD2_RESET_B	ALT0: USDHC2_RESET_B ALT1: LPTMR2_ALT1 ALT3: NETC_TMR_1588_GCLK ALT4: FLEXIO1_FLEXIO07 ALT5: GPIO3_IO07	VDD_SDIO2	Line internally connected to the PMIC.
2	E3	GPIO2_IO19	GPIO_IO19	ALT0: GPIO2_IO19 ALT1: SAI3_RX_SYNC ALT2: PDM_BIT_STREAM03 ALT3: FLEXIO1_FLEXIO19 ALT4: LPSP15_SIN ALT5: LPSP14_SIN ALT6: TPM6_CH2 ALT7: SAI3_TX_DATA00	NVCC_GPIO	
3	F3	NC				
4	G2	SD2_CD_B	SD2_CD_B	ALT0: USDHC2_CD_B ALT1: NETC_TMR_1588_TRIG1 ALT2: I3C2_SCL ALT4: FLEXIO1_FLEXIO00 ALT5: GPIO3_IO00	VDD_SDIO2	
5	F1	SD2_CMD	SD2_CMD	ALT0: USDHC2_CMD ALT1: NETC_TMR_1588_TRIG2 ALT2: I3C2_PUR ALT3: I3C2_PUR_B ALT4: FLEXIO1_FLEXIO02 ALT5: GPIO3_IO02	VDD_SDIO2	
6	G1	SD2_DATA0	SD2_DATA0	ALT0: USDHC2_DATA0 ALT1: NETC_TMR_1588_PP2	VDD_SDIO2	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT2: CAN2_TX ALT4: FLEXIO1_FLEXIO03 ALT5: GPIO3_IO03		
7	H1	SD2_DATA1	SD2_DATA1	ALT0: USDHC2_DATA1 ALT1: NETC_TMR_1588_CLK ALT2: CAN2_RX ALT4: FLEXIO1_FLEXIO04 ALT5: GPIO3_IO04	VDD_SDIO2	
8	J1	SD2_DATA2	SD2_DATA2	ALT0: USDHC2_DATA2 ALT1: NETC_TMR_1588_PP3 ALT2: MQS2_RIGHT ALT4: FLEXIO1_FLEXIO05 ALT5: GPIO3_IO05	VDD_SDIO2	
9	K1	SD2_DATA3	SD2_DATA3	ALT0: USDHC2_DATA3 ALT1: LPTMR2_ALT0 ALT2: MQS2_LEFT ALT3: NETC_TMR_1588_ALARM1 ALT4: FLEXIO1_FLEXIO06 ALT5: GPIO3_IO06	VDD_SDIO2	
10	L1	SD2_CLK	SD2_CLK	ALT0: USDHC2_CLK ALT1: NETC_TMR_1588_PP1 ALT2: I3C2_SDA ALT4: FLEXIO1_FLEXIO01 ALT5: GPIO3_IO01	VDD_SDIO2	
11	M1	GND				
12	N1	NVCC_SD2				Input power supply to the CPU, internally connected to a PMIC regulator.

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
13	P1	UART7_TX	GPIO_IO08	ALT0: GPIO2_IO08 ALT1: LPSPi3_PCS0 ALT4: TPM6_CH0 ALT5: LPUART7_TX ALT6: LPI2C7_SDA ALT7: FLEXIO1_FLEXIO08	NVCC_GPIO	
14	R1	UART7_RX	GPIO_IO09	ALT0: GPIO2_IO09 ALT1: LPSPi3_SIN ALT4: TPM3_EXTCLK ALT5: LPUART7_RX ALT6: LPI2C7_SCL ALT7: FLEXIO1_FLEXIO09	NVCC_GPIO	
15	T1	GND				
16	U1	NVCC_GPIO				Input power rail to the CPU.
17	V1	I2C2_SCL	I2C2_SCL	ALT0: LPI2C2_SCL ALT1: I3C1_PUR ALT2: LPUART2_DCD_B ALT3: TPM2_CH2 ALT4: SAI1_RX_SYNC ALT5: GPIO1_IO02 ALT6: I3C1_PUR_B	NVCC_AON	
18	W1	I2C2_SDA	I2C2_SDA	ALT0: LPI2C2_SDA ALT2: LPUART2_RIN_B ALT3: TPM2_CH3 ALT4: SAI1_RX_BCLK ALT5: GPIO1_IO03	NVCC_AON	
19	Y1	PDM_BIT_STREAM1	PDM_BIT_STREAM1	ALT0: PDM_BIT_STREAM01 ALT1: NMI_GLUE_NMI ALT2: LPSPi2_PCS1 ALT3: TPM2_EXTCLK	NVCC_AON	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT4: LPTMR1_ALT2 ALT5: GPIO1_IO10		
20	AA1	GPIO2_IO06	GPIO_IO06	ALT0: GPIO2_IO06 ALT1: TPM5_CH0 ALT2: PDM_BIT_STREAM01 ALT4: LPSPi7_SOUT ALT5: LPUART6_CTS_B ALT6: LPI2C7_SDA ALT7: FLEXIO1_FLEXIO06	NVCC_GPIO	
21	AB1	UART1_TX	UART1_TXD	ALT0: LPUART1_TX ALT1: ELE_UART_TX ALT2: LPSPi2_PCS0 ALT3: TPM1_CH1 ALT5: GPIO1_IO05	NVCC_AON	BOOT_MODE0 line. This line is also connected to pad W29. Internal 100K pull-down.
22	AC1	UART2_TX	UART2_TXD	ALT0: LPUART2_TX ALT1: LPUART1_RTS_B ALT2: LPSPi2_SCK ALT3: TPM1_CH3 ALT5: GPIO1_IO07	NVCC_AON	BOOT_MODE1 line. This line is also connected to pad F11. Internal 1K pull-up resistor.
23	AD1	SPI1_CS0	SAI1_TXFS	ALT0: SAI1_TX_SYNC ALT1: SAI1_TX_DATA01 ALT2: LPSPi1_PCS0 ALT3: LPUART2_DTR_B ALT4: MQS1_LEFT ALT5: GPIO1_IO11	NVCC_AON	BOOT_MODE2 line. This line is also connected to pad C17. Internal 100K pull-down resistor.

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
24	AE1	SPI1_SCK	SAI1_TXD0	ALT0: SAI1_TX_DATA00 ALT1: LPUART2_RTS_B ALT2: LPSPI1_SCK ALT3: LPUART1_DTR_B ALT4: CAN1_TX ALT5: GPIO1_IO13	NVCC_AON	BOOT_MODE3 line. This line is also connected to pad E17. Internal 100K pull-down resistor.
25	AF1	ENET2_MDC	ENET2_MDC	ALT0: NETC_MDC ALT1: LPUART4_DCD_B ALT2: SAI2_RX_SYNC ALT4: FLEXIO2_FLEXIO14 ALT5: GPIO1_IO14	1V8	
26	AG1	ENET2_MDIO	ENET2_MDIO	ALT0: NETC_MDIO ALT1: LPUART4_RIN_B ALT2: SAI2_RX_BCLK ALT4: FLEXIO2_FLEXIO15 ALT5: GPIO1_IO15	1V8	
27	AH1	1V8				
28	AJ1	GND				
29	AK1	3V3				
30	-	GND				
31	-	VSYS2				
32	-	VSYS2				
33	-	VSYS				
34	-	GND				
35	AN4	GPIO2_IO18	GPIO_IO18	ALT0: GPIO2_IO18	NVCC_GPIO	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT1: SAI3_RX_BCLK ALT4: LPSPi5_PCS0 ALT5: LPSPi4_PCS0 ALT6: TPM5_CH2 ALT7: FLEXIO1_FLEXIO18		
36	RESERVED					
37	AN6	MIPI_DSI1_CLK_N	MIPI_DSICSI1_CLK_N			
38	AN7	MIPI_DSI1_CLK_P	MIPI_DSICSI1_CLK_P			
39	AN8	GND				
40	AN9	MIPI_DSI1_DATA0_N	MIPI_DSICSI1_DATA0_N			
41	AN10	MIPI_DSI1_DATA0_P	MIPI_DSICSI1_DATA0_P			
42	AN11	GND				
43	AN12	MIPI_DSI1_DATA1_N	MIPI_DSICSI1_DATA1_N			
44	AN13	MIPI_DSI1_DATA1_P	MIPI_DSICSI1_DATA1_P			
45	AN14	GND				
46	AN15	MIPI_DSI1_DATA2_N	MIPI_DSICSI1_DATA2_N			
47	AN16	MIPI_DSI1_DATA2_P	MIPI_DSICSI1_DATA2_P			
48	AN17	GND				
49	AN18	MIPI_DSI1_DATA3_N	MIPI_DSICSI1_DATA3_N			
50	AN19	MIPI_DSI1_DATA3_P	MIPI_DSICSI1_DATA3_P			
51	AN20	GND				
52	AN21	NVCC_AON				Input power rail to the CPU.

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
53	AN22	NC				
54	AN23	NC				
55	AN24	ONOFF	ONOFF			ON/OFF signal from the CPU. Active low with internal pull-up.
56	AN25	SYS_RESET				Input reset line of the module. Active low with internal pull-up.
57	AN26	NC				
58	AM27	NC				
59	-	NC				
60	-	GND				
61	AL27	NC				
62	AL28	NC				
63	AK29	GPIO2_IO30	GPIO_IO30	ALT0: GPIO2_IO30 ALT1: LPI2C4_SDA ALT2: CAN5_TX ALT7: FLEXIO1_FLEXIO30	NVCC_GPIO	
64	AJ29	GPIO2_IO31	GPIO_IO31	ALT0: GPIO2_IO31 ALT1: LPI2C4_SCL ALT2: CAN5_RX ALT7: FLEXIO1_FLEXIO31	NVCC_GPIO	
65	AH29	GPIO5_IO17	GPIO_IO37	ALT0: GPIO5_IO17 ALT2: LPUART7_RX	NVCC_GPIO	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT4: LPSPI4_SCK		
66	AG29	NC				
67	AF29	NC				
68	AE29	GPIO5_IO16	GPIO_IO36	ALT0: GPIO5_IO16 ALT2: LPUART7_TX ALT4: LPSPI4_SOUT	NVCC_GPIO	
69	AD29	GPIO5_IO15	GPIO_IO35	ALT0: GPIO5_IO15 ALT1: PCIE2_CLKREQ_B ALT2: LPUART6_RTS_B ALT4: LPSPI4_SIN	NVCC_GPIO	
70	AC29	GPIO5_IO14	GPIO_IO34	ALT0: GPIO5_IO14 ALT2: LPUART6_CTS_B ALT4: LPSPI4_PCS0	NVCC_GPIO	
71	AB29	GPIO5_IO13	GPIO_IO33	ALT0: GPIO5_IO13 ALT2: LPUART6_RX ALT4: LPSPI4_PCS1	NVCC_GPIO	
72	AA29	GPIO5_IO12	GPIO_IO32	ALT0: GPIO5_IO12 ALT1: PCIE1_CLKREQ_B ALT2: LPUART6_TX ALT4: LPSPI4_PCS2	NVCC_GPIO	
73	Y29	GND				
74	W29	UART1_TX	UART1_TXD	ALT0: LPUART1_TX ALT1: ELE_UART_TX ALT2: LPSPI2_PCS0 ALT3: TPM1_CH1 ALT5: GPIO1_IO05	NVCC_AON	This line is also connected to pad AB1. Internal 100K pull-down.
75	V29	UART1_RX	UART1_RXD	ALT0: LPUART1_RX ALT1: ELE_UART_RX	NVCC_AON	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT2: LPSP12_SIN ALT3: TPM1_CH0 ALT5: GPIO1_IO04		
76	U29	CAN1_RX	PDM_BIT_STREAM0	ALT0: PDM_BIT_STREAM00 ALT1: MQS1_RIGHT ALT2: LPSP11_PCS1 ALT3: TPM1_EXTCLK ALT4: LPTMR1_ALT1 ALT5: GPIO1_IO09 ALT6: CAN1_RX	NVCC_AON	
77	T29	CAN1_TX	PDM_CLK	ALT0: PDM_CLK ALT1: MQS1_LEFT ALT4: LPTMR1_ALT0 ALT5: GPIO1_IO08 ALT6: CAN1_TX	NVCC_AON	
78	R29	CAN2_RX	GPIO_IO27	ALT0: GPIO2_IO27 ALT1: USDHC3_DATA3 ALT2: CAN2_RX ALT4: TPM6_CH3 ALT5: JTAG_MUX_TMS ALT6: LPSP15_PCS1 ALT7: FLEXIO1_FLEXIO27	NVCC_GPIO	
79	P29	CAN2_TX	GPIO_IO25	ALT0: GPIO2_IO25 ALT1: USDHC3_DATA1 ALT2: CAN2_TX ALT4: TPM4_CH3 ALT5: JTAG_MUX_TCK ALT6: LPSP17_PCS1 ALT7: FLEXIO1_FLEXIO25	NVCC_GPIO	
80	N29	UART7_RTS	GPIO_IO11	ALT0: GPIO2_IO11 ALT1: LPSP13_SCK ALT4: TPM5_EXTCLK	NVCC_GPIO	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT5: LPUART7_RTS_B ALT6: LPI2C8_SCL ALT7: FLEXIO1_FLEXIO11		
81	M29	UART7_CTS	GPIO_IO10	ALT0: GPIO2_IO10 ALT1: LPSP13_SOUT ALT4: TPM4_EXTCLK ALT5: LPUART7_CTS_B ALT6: LPI2C8_SDA ALT7: FLEXIO1_FLEXIO10	NVCC_GPIO	
82	L29	ADC_IN1 (1V8)	ADC_IN1		1V8	
83	K29	ADC_IN0 (1V8)	ADC_IN0		1V8	
84	J29	ADC_IN4 (1V8)	ADC_IN4		1V8	
85	H29	GND				
86	G29	TAMPER0 (1V8)	TAMPER0		1V8	
87	F29	TAMPER1 (1V8)	TAMPER1		1V8	
88	E29	I2C4_SDA	GPIO_IO02	ALT0: GPIO2_IO02 ALT1: LPI2C4_SDA ALT4: LPSP16_SOUT ALT5: LPUART5_CTS_B ALT6: LPI2C6_SDA ALT7: FLEXIO1_FLEXIO02	NVCC_GPIO	
89	F28	I2C4_SCL	GPIO_IO03	ALT0: GPIO2_IO03 ALT1: LPI2C4_SCL ALT4: LPSP16_SCK ALT5: LPUART5_RTS_B ALT6: LPI2C6_SCL ALT7: FLEXIO1_FLEXIO03	NVCC_GPIO	
90	E28	GPIO2_IO22	GPIO_IO22	ALT0: GPIO2_IO22	NVCC_GPIO	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT1: USDHC3_CLK ALT2: SPDIF_IN ALT3: CAN5_TX ALT4: TPM5_CH1 ALT5: TPM6_EXTCLK ALT6: LPI2C5_SDA ALT7: FLEXIO1_FLEXIO22		
91	E27	GPIO2_IO23	GPIO_IO23	ALT0: GPIO2_IO23 ALT1: USDHC3_CMD ALT2: SPDIF_OUT ALT3: CAN5_RX ALT4: TPM6_CH1 ALT6: LPI2C5_SCL ALT7: FLEXIO1_FLEXIO23	NVCC_GPIO	
92	C24	GPIO2_IO24	GPIO_IO24	ALT0: GPIO2_IO24 ALT1: USDHC3_DATA0 ALT4: TPM3_CH3 ALT5: JTAG_MUX_TDO ALT6: LPSPI6_PCS1 ALT7: FLEXIO1_FLEXIO24	NVCC_GPIO	
93	B24	SAI3_MCLK	GPIO_IO17	ALT0: GPIO2_IO17 ALT1: SAI3_MCLK ALT4: LPUART3_RTS_B ALT5: LPSPI4_PCS1 ALT6: LPUART4_RTS_B ALT7: FLEXIO1_FLEXIO17	NVCC_GPIO	
94	-	GND				
95	-	NC				
96	A24	ENET1_TXC	ENET1_TXC	ALT0: ETH0_RGMII_TX_CLK ALT1: ENET_CLK_ROOT ALT4: FLEXIO2_FLEXIO07	1V8	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT5: GPIO4_IO07		
97	A23	ENET1_TX_CTL	ENET1_TX_CTL	ALT0: ETH0_RGMII_TX_CTL ALT1: LPUART3_DTR_B ALT2: ETH0_RMII_TX_EN ALT4: FLEXIO2_FLEXIO06 ALT5: GPIO4_IO06	1V8	
98	A22	ENET1_TD0	ENET1_TD0	ALT0: ETH0_RGMII_TD0 ALT1: LPUART3_TX ALT2: ETH0_RMII_TXD0 ALT4: FLEXIO2_FLEXIO05 ALT5: GPIO4_IO05	1V8	
99	A21	ENET1_TD1	ENET1_TD1	ALT0: ETH0_RGMII_TD1 ALT1: LPUART3_RTS_B ALT2: I3C2_PUR ALT3: USBS1_OTG_OC ALT4: FLEXIO2_FLEXIO04 ALT5: GPIO4_IO04 ALT6: I3C2_PUR_B ALT7: ETH0_RMII_TXD1	1V8	
100	A20	ENET1_TD2	ENET1_TD2	ALT0: ETH0_RGMII_TD2 ALT1: ETH0_RMII_REF50_CLK ALT2: CAN2_RX ALT3: USB2_OTG_OC ALT4: FLEXIO2_FLEXIO03 ALT5: GPIO4_IO03	1V8	
101	A19	ENET1_TD3	ENET1_TD3	ALT0: ETH0_RGMII_TD3 ALT2: CAN2_TX ALT3: USB2_OTG_ID ALT4: FLEXIO2_FLEXIO02 ALT5: GPIO4_IO02	1V8	
102	A18	ENET1_RXC	ENET1_RXC	ALT0: ETH0_RGMII_RX_CLK	1V8	

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
				ALT1: ETH0_RMII_RX_ER ALT4: FLEXIO2_FLEXIO09 ALT5: GPIO4_IO09		
103	A17	ENET1_RX_CTL	ENET1_RX_CTL	ALT0: ETH0_RGMII_RX_CTL ALT1: LPUART3_DSR_B ALT2: ETH0_RMII_CRSDV ALT3: USB2_OTG_PWR ALT4: FLEXIO2_FLEXIO08 ALT5: GPIO4_IO08	1V8	
104	A16	ENET1_RD0	ENET1_RD0	ALT0: ETH0_RGMII_RD0 ALT1: LPUART3_RX ALT2: ETH0_RMII_RXD0 ALT4: FLEXIO2_FLEXIO10 ALT5: GPIO4_IO10	1V8	
105	A15	ENET1_RD1	ENET1_RD1	ALT0: ETH0_RGMII_RD1 ALT1: LPUART3_CTS_B ALT2: ETH0_RMII_RXD1 ALT3: LPTMR2_ALT0 ALT4: FLEXIO2_FLEXIO11 ALT5: GPIO4_IO11	1V8	
106	A14	ENET1_RD2	ENET1_RD2	ALT0: ETH0_RGMII_RD2 ALT2: ETH0_RMII_RX_ER ALT3: LPTMR2_ALT1 ALT4: FLEXIO2_FLEXIO12 ALT5: GPIO4_IO12	1V8	
107	A13	ENET1_RD3	ENET1_RD3	ALT0: ETH0_RGMII_RD3 ALT3: LPTMR2_ALT2 ALT4: FLEXIO2_FLEXIO13 ALT5: GPIO4_IO13	1V8	
108	A12	NC				

Castellated pad number	Associated LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing (green value represents default functionality)	Power group	Comments
109	A11	ENET1_MDIO	ENET1_MDIO	ALT0: NETC_MDIO ALT1: LPUART3_RIN_B ALT2: I3C2_SDA ALT3: USB1_OTG_PWR ALT4: FLEXIO2_FLEXIO01 ALT5: GPIO4_IO01	1V8	
110	A10	ENET1_MDC	ENET1_MDC	ALT0: NETC_MDC ALT1: LPUART3_DCD_B ALT2: I3C2_SCL ALT3: USB1_OTG_ID ALT4: FLEXIO2_FLEXIO00 ALT5: GPIO4_IO00	1V8	
111	A9	USB2_D_P	USB2_D_P			
112	A8	USB2_D_N	USB2_D_N			
113	A7	USB1_D_P	USB1_D_P			
114	A6	USB1_D_N	USB1_D_N			
115	-	GND				
116	B6	USB1_VBUS	USB1_VBUS			
117	D4	GND				
118	C6	USB1_ID	USB1_ID		3V3	

Extended LGA signals and multiplexing

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
A4	GND				
A5	GND				
A6	USB1_D_N	USB1_D_N			
A7	USB1_D_P	USB1_D_P			
A8	USB2_D_N	USB2_D_N			
A9	USB2_D_P	USB2_D_P			
A10	ENET1_MDC	ENET1_MDC	ALT0: NETC_MDC ALT1: LPUART3_DCD_B ALT2: I3C2_SCL ALT3: USB1_OTG_ID ALT4: FLEXIO2_FLEXIO00 ALT5: GPIO4_IO00	1V8	
A11	ENET1_MDIO	ENET1_MDIO	ALT0: NETC_MDIO ALT1: LPUART3_RIN_B ALT2: I3C2_SDA ALT3: USB1_OTG_PWR ALT4: FLEXIO2_FLEXIO01 ALT5: GPIO4_IO01	1V8	
A12	NC				
A13	ENET1_RD3	ENET1_RD3	ALT0: ETH0_RGMII_RD3 ALT3: LPTMR2_ALT2 ALT4: FLEXIO2_FLEXIO13 ALT5: GPIO4_IO13	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
A14	ENET1_RD2	ENET1_RD2	ALT0: ETH0_RGMII_RD2 ALT2: ETH0_RMII_RX_ER ALT3: LPTMR2_ALT1 ALT4: FLEXIO2_FLEXIO12 ALT5: GPIO4_IO12	1V8	
A15	ENET1_RD1	ENET1_RD1	ALT0: ETH0_RGMII_RD1 ALT1: LPUART3_CTS_B ALT2: ETH0_RMII_RXD1 ALT3: LPTMR2_ALT0 ALT4: FLEXIO2_FLEXIO11 ALT5: GPIO4_IO11	1V8	
A16	ENET1_RD0	ENET1_RD0	ALT0: ETH0_RGMII_RD0 ALT1: LPUART3_RX ALT2: ETH0_RMII_RXD0 ALT4: FLEXIO2_FLEXIO10 ALT5: GPIO4_IO10	1V8	
A17	ENET1_RX_CTL	ENET1_RX_CTL	ALT0: ETH0_RGMII_RX_CTL ALT1: LPUART3_DSR_B ALT2: ETH0_RMII_CRS_DV ALT3: USB2_OTG_PWR ALT4: FLEXIO2_FLEXIO08 ALT5: GPIO4_IO08	1V8	
A18	ENET1_RXC	ENET1_RXC	ALT0: ETH0_RGMII_RX_CLK ALT1: ETH0_RMII_RX_ER ALT4: FLEXIO2_FLEXIO09 ALT5: GPIO4_IO09	1V8	
A19	ENET1_TD3	ENET1_TD3	ALT0: ETH0_RGMII_TD3 ALT2: CAN2_TX ALT3: USB2_OTG_ID ALT4: FLEXIO2_FLEXIO02 ALT5: GPIO4_IO02	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
A20	ENET1_TD2	ENET1_TD2	ALT0: ETH0_RGMII_TD2 ALT1: ETH0_RMII_REF50_CLK ALT2: CAN2_RX ALT3: USB2_OTG_OC ALT4: FLEXIO2_FLEXIO03 ALT5: GPIO4_IO03	1V8	
A21	ENET1_TD1	ENET1_TD1	ALT0: ETH0_RGMII_TD1 ALT1: LPUART3_RTS_B ALT2: I3C2_PUR ALT3: USB1_OTG_OC ALT4: FLEXIO2_FLEXIO04 ALT5: GPIO4_IO04 ALT6: I3C2_PUR_B ALT7: ETH0_RMII_TXD1	1V8	
A22	ENET1_TD0	ENET1_TD0	ALT0: ETH0_RGMII_TD0 ALT1: LPUART3_TX ALT2: ETH0_RMII_TXD0 ALT4: FLEXIO2_FLEXIO05 ALT5: GPIO4_IO05	1V8	
A23	ENET1_TX_CTL	ENET1_TX_CTL	ALT0: ETH0_RGMII_TX_CTL ALT1: LPUART3_DTR_B ALT2: ETH0_RMII_TX_EN ALT4: FLEXIO2_FLEXIO06 ALT5: GPIO4_IO06	1V8	
A24	ENET1_TXC	ENET1_TXC	ALT0: ETH0_RGMII_TX_CLK ALT1: ENET_CLK_ROOT ALT4: FLEXIO2_FLEXIO07 ALT5: GPIO4_IO07	1V8	
A25	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
A26	RF_ANT2_EXT				Internal antenna pad.
B3	USB1_TX1_P	USB1_TX1_P			
B4	USB1_TX1_N	USB1_TX1_N			
B5	GND				
B6	USB1_VBUS	USB1_VBUS			
B7	NC				
B8	GND				
B9	USB1_TX0_N	USB1_TX0_N			
B10	USB1_TX0_P	USB1_TX0_P			
B11	GND				
B12	USB1_RX0_N	USB1_RX0_N			
B13	USB1_RX0_P	USB1_RX0_P			
B14	GND				
B15	GND				
B16	NC				
B17	NC				
B18	GND				
B19	ENET2_TX_CTL	ENET2_TX_CTL	ALT0: ETH1_RGMII_TX_CTL ALT1: LPUART4_DTR_B ALT2: SAI2_TX_SYNC ALT3: ETH1_RMII_TX_EN ALT4: FLEXIO2_FLEXIO20	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT5: GPIO4_IO20		
B20	ENET2_TXC	ENET2_TXC	ALT0: ETH1_RGMII_TX_CLK ALT1: ENET_CLK_ROOT ALT2: SAI2_TX_BCLK ALT4: FLEXIO2_FLEXIO21 ALT5: GPIO4_IO21	1V8	
B21	ENET2_TD3	ENET2_TD3	ALT0: ETH1_RGMII_TD3 ALT2: SAI2_RX_DATA00 ALT4: FLEXIO2_FLEXIO16 ALT5: GPIO4_IO16	1V8	
B22	ENET2_RD3	ENET2_RD3	ALT0: ETH1_RGMII_RD3 ALT1: SPDIF_OUT ALT2: SPDIF_IN ALT3: MQS2_LEFT ALT4: FLEXIO2_FLEXIO27 ALT5: GPIO4_IO27	1V8	
B23	RESERVED				
B24	SAI3_MCLK	GPIO_IO17	ALT0: GPIO2_IO17 ALT1: SAI3_MCLK ALT4: LPUART3_RTS_B ALT5: LPSPI4_PCS1 ALT6: LPUART4_RTS_B ALT7: FLEXIO1_FLEXIO17	NVCC_GPIO	
B25	GND				
B26	GND				
B27	GND				
C2	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
C3	NC				
C4	GND				
C5	GND				
C6	USB1_ID	USB1_ID			
C7	NC				
C8	NC				
C9	NC				
C10	USB2_ID	USB2_ID			
C11	NC				
C12	NC				
C13	NC				
C14	NC				
C15	GND				
C16	GND				
C17	SPI1_CS0	SAI1_TXFS	ALT0: SAI1_TX_SYNC ALT1: SAI1_TX_DATA01 ALT2: LPSP11_PCS0 ALT3: LPUART2_DTR_B ALT4: MQS1_LEFT ALT5: GPIO1_IO11	NVCC_AON	This line is also connected to pad AD1. Internal 100K pull-down resistor.
C18	SPI1_SIN	SAI1_TXC	ALT0: SAI1_TX_BCLK ALT1: LPUART2_CTS_B ALT2: LPSP11_SIN	NVCC_AON	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT3: LPUART1_DSR_B ALT4: CAN1_RX ALT5: GPIO1_IO12		
C19	SAI3_TX_SYNC	GPIO_IO26	ALT0: GPIO2_IO26 ALT1: USDHC3_DATA2 ALT2: PDM_BIT_STREAM01 ALT3: FLEXIO1_FLEXIO26 ALT4: TPM5_CH3 ALT5: JTAG_MUX_TDI ALT6: LPSP18_PCS1 ALT7: SAI3_TX_SYNC	NVCC_GPIO	
C20	ENET2_RD2	ENET2_RD2	ALT0: ETH1_RGMII_RD2 ALT1: LPUART4_CTS_B ALT2: SAI2_MCLK ALT3: MQS2_RIGHT ALT4: FLEXIO2_FLEXIO26 ALT5: GPIO4_IO26 ALT6: ETH1_RMII_RX_ER	1V8	
C21	ENET2_TD2	ENET2_TD2	ALT0: ETH1_RGMII_TD2 ALT1: ETH1_RMII_REF50_CLK ALT2: SAI2_RX_DATA01 ALT3: SAI4_TX_SYNC ALT4: FLEXIO2_FLEXIO17 ALT5: GPIO4_IO17	1V8	
C22	ENET2_TD0	ENET2_TD0	ALT0: ETH1_RGMII_TD0 ALT1: LPUART4_TX ALT2: SAI2_RX_DATA03 ALT3: SAI4_TX_DATA00 ALT4: FLEXIO2_FLEXIO19 ALT5: GPIO4_IO19 ALT6: ETH1_RMII_TXD0	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
C23	ENET2_RX_CTL	ENET2_RX_CTL	ALT0: ETH1_RGMII_RX_CTL ALT1: LPUART4_DSR_B ALT2: SAI2_TX_DATA00 ALT4: FLEXIO2_FLEXIO22 ALT5: GPIO4_IO22 ALT6: ETH1_RMII_CRS_DV	1V8	
C24	GPIO2_IO24	GPIO_IO24	ALT0: GPIO2_IO24 ALT1: USDHC3_DATA0 ALT4: TPM3_CH3 ALT5: JTAG_MUX_TDO ALT6: LPSPi6_PCS1 ALT7: FLEXIO1_FLEXIO24	NVCC_GPIO	
C25	GND				
C26	GND				
C27	RF_ANT_EXT				Internal antenna pad.
C28	GND				
D1	NC				
D2	USB1_RX1_P	USB1_RX1_P			
D3	USB1_RX1_N	USB1_RX1_N			
D4	GND				
D5	WLAN_SD3_DATA3	SD3_DATA3	ALT0: USDHC3_DATA3 ALT1: FLEXSPI1_A_DATA03 ALT2: SAI5_RX_DATA03 ALT3: SAI5_TX_BCLK ALT4: FLEXIO1_FLEXIO25 ALT5: GPIO3_IO25 ALT6: XSPI_DATA03	1V8	This SDIO interface is connected to the Wireless chip on the wireless variants of the SOM. This pads must remain unconnected unless when using a non wireless variant

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
D6	WLAN_SD3_DATA2	SD3_DATA2	ALT0: USDHC3_DATA2 ALT1: FLEXSPI1_A_DATA02 ALT2: SAI5_RX_DATA02 ALT3: SAI5_TX_SYNC ALT4: FLEXIO1_FLEXIO24 ALT5: GPIO3_IO24 ALT6: XSPI_DATA02	1V8	of the module.
D7	NC				
D8	WLAN_SD3_DATA1	SD3_DATA1	ALT0: USDHC3_DATA1 ALT1: FLEXSPI1_A_DATA01 ALT2: SAI5_RX_DATA01 ALT3: SAI5_TX_DATA00 ALT4: FLEXIO1_FLEXIO23 ALT5: GPIO3_IO23 ALT6: XSPI_DATA01	1V8	This SDIO interface is connected to the Wireless chip on the wireless variants of the SOM. This pads must remain unconnected unless when using a non wireless variant of the module.
D9	WLAN_SD3_DATA0	SD3_DATA0	ALT0: USDHC3_DATA0 ALT1: FLEXSPI1_A_DATA00 ALT2: SAI5_TX_DATA03 ALT3: SAI5_RX_BCLK ALT4: FLEXIO1_FLEXIO22 ALT5: GPIO3_IO22 ALT6: XSPI_DATA00	1V8	
D10	NC				
D11	WLAN_SD3_CMD	SD3_CMD	ALT0: USDHC3_CMD ALT1: FLEXSPI1_A_SS0_B ALT2: SAI5_TX_DATA02 ALT3: SAI5_RX_SYNC ALT4: FLEXIO1_FLEXIO21 ALT5: GPIO3_IO21 ALT6: XSPI_CS	1V8	This SDIO interface is connected to the Wireless chip on the wireless variants of the SOM. This pads must remain unconnected unless when using a non wireless variant

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
D12	WLAN_SD3_CLK	SD3_CLK	ALT0: USDHC3_CLK ALT1: FLEXSPI1_A_SCLK ALT2: SAI5_TX_DATA01 ALT3: SAI5_RX_DATA00 ALT4: FLEXIO1_FLEXIO20 ALT5: GPIO3_IO20 ALT6: XSPI_CLK	1V8	of the module.
D13	GPIO4_IO28	CCM_CLKO3	ALT0: CLK0_3 ALT1: NETC_TMR_1588_TRIG2 ALT2: CAN3_TX ALT4: FLEXIO2_FLEXIO28 ALT5: GPIO4_IO28	1V8	This signal is only externally available in non-wireless variants of the module.
D14	NC				
D15	NC				
D16	GND				
D17	SPI8_SCK	GPIO_IO15	ALT0: GPIO2_IO15 ALT1: LPUART3_RX ALT4: LPSPI8_SCK ALT5: LPUART8_RTS_B ALT6: LPUART4_RX ALT7: FLEXIO1_FLEXIO15	NVCC_GPIO	
D18	SPI1_SOUT	SAI1_RXD0	ALT0: SAI1_RX_DATA00 ALT1: SAI1_MCLK ALT2: LPSPI1_SOUT ALT3: LPUART2_DSR_B ALT4: MQS1_RIGHT ALT5: GPIO1_IO14	NVCC_AON	
D19	NC				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
D20	ENET2_TD1	ENET2_TD1	ALT0: ETH1_RGMII_TD1 ALT1: LPUART4_RTS_B ALT2: SAI2_RX_DATA02 ALT3: SAI4_TX_BCLK ALT4: FLEXIO2_FLEXIO18 ALT5: GPIO4_IO18 ALT6: ETH1_RMII_TXD1	1V8	
D21	ENET2_RD0	ENET2_RD0	ALT0: ETH1_RGMII_RD0 ALT1: LPUART4_RX ALT2: SAI2_TX_DATA02 ALT3: SAI4_RX_BCLK ALT4: FLEXIO2_FLEXIO24 ALT5: GPIO4_IO24 ALT6: ETH1_RMII_RXD0	1V8	
D22	ENET2_RXC	ENET2_RXC	ALT0: ETH1_RGMII_RX_CLK ALT1: ETH1_RMII_RX_ER ALT2: SAI2_TX_DATA01 ALT3: SAI4_RX_SYNC ALT4: FLEXIO2_FLEXIO23 ALT5: GPIO4_IO23	1V8	
D23	ENET2_RD1	ENET2_RD1	ALT0: ETH1_RGMII_RD1 ALT1: SPDIF_IN ALT2: SAI2_TX_DATA03 ALT3: SAI4_RX_DATA00 ALT4: FLEXIO2_FLEXIO25 ALT5: GPIO4_IO25 ALT6: ETH1_RMII_RXD1	1V8	
D24	GND				
D25	GPIO3_IO27	CCM_CLKO2	ALT0: CLKO_2 ALT1: NETC_TMR_1588_PP1 ALT4: FLEXIO1_FLEXIO27	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT5: GPIO3_IO27		
D26	GND				
D27	GND				
D28	GND				
D29	GND				
E1	GND				
E2	GND				
E3	WL_REG_EN	GPIO_IO19	ALT0: GPIO2_IO19 ALT1: SAI3_RX_SYNC ALT2: PDM_BIT_STREAM03 ALT3: FLEXIO1_FLEXIO19 ALT4: LPSPI5_SIN ALT5: LPSPI4_SIN ALT6: TPM6_CH2 ALT7: SAI3_TX_DATA00	NVCC_GPIO	This signal is only externally available in non-wireless variants of the module.
E4	SD2_RESET_B	SD2_RESET_B	ALT0: USDHC2_RESET_B ALT1: LPTMR2_ALT1 ALT3: NETC_TMR_1588_GCLK ALT4: FLEXIO1_FLEXIO07 ALT5: GPIO3_IO07	VDD_SDIO2	Line internally connected to the PMIC.
E5	1V8				
E6	GND				
E7	USB2_VBUS	USB2_VBUS			
E8	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
E9	BT_I2S_DI				
E10	BT_I2S_WS				
E11	BT_I2S_CLK				
E12	GPIO2_IO05	GPIO_IO05	ALT0: GPIO2_IO05 ALT1: TPM4_CH0 ALT2: PDM_BIT_STREAM00 ALT3: CAN4_RX ALT4: LPSP17_SIN ALT5: LPUART6_RX ALT6: LPI2C6_SCL ALT7: FLEXIO1_FLEXIO05	NVCC_GPIO	
E13	GPIO2_IO04	GPIO_IO04	ALT0: GPIO2_IO04 ALT1: TPM3_CH0 ALT2: PDM_CLK ALT3: CAN4_TX ALT4: LPSP17_PCS0 ALT5: LPUART6_TX ALT6: LPI2C6_SDA ALT7: FLEXIO1_FLEXIO04	NVCC_GPIO	
E14	NC				
E15	NC				
E16	NC				
E17	SPI1_SCK	SAI1_TXD0	ALT0: SAI1_TX_DATA00 ALT1: LPUART2_RTS_B ALT2: LPSPI1_SCK ALT3: LPUART1_DTR_B ALT4: CAN1_TX ALT5: GPIO1_IO13	NVCC_AON	This line is also connected to pad AE1. Internal 100K pull-down resistor.

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
E18	SPI8_SOUT	GPIO_IO14	ALT0: GPIO2_IO14 ALT1: LPUART3_TX ALT4: LPSPI8_SOUT ALT5: LPUART8_CTS_B ALT6: LPUART4_TX ALT7: FLEXIO1_FLEXIO14	NVCC_GPIO	
E19	SPI8_CS0	GPIO_IO12	ALT0: GPIO2_IO12 ALT1: TPM3_CH2 ALT2: PDM_BIT_STREAM02 ALT3: FLEXIO1_FLEXIO12 ALT4: LPSPI8_PCS0 ALT5: LPUART8_TX ALT6: LPI2C8_SDA ALT7: SAI3_RX_SYNC	NVCC_GPIO	
E20	SAI3_TXD	GPIO_IO21	ALT0: GPIO2_IO21 ALT1: SAI3_TX_DATA00 ALT2: PDM_CLK ALT3: FLEXIO1_FLEXIO21 ALT4: LPSPI5_SCK ALT5: LPSPI4_SCK ALT6: TPM4_CH1 ALT7: SAI3_RX_BCLK	NVCC_GPIO	
E21	SAI3_RXD	GPIO_IO20	ALT0: GPIO2_IO20 ALT1: SAI3_RX_DATA00 ALT2: PDM_BIT_STREAM00 ALT4: LPSPI5_SOUT ALT5: LPSPI4_SOUT ALT6: TPM3_CH1 ALT7: FLEXIO1_FLEXIO20	NVCC_GPIO	
E22	SPI8_SIN	GPIO_IO13	ALT0: GPIO2_IO13 ALT1: TPM4_CH2	NVCC_GPIO	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT2: PDM_BIT_STREAM03 ALT4: LPSP18_SIN ALT5: LPUART8_RX ALT6: LPI2C8_SCL ALT7: FLEXIO1_FLEXIO13		
E23	SAI3_TXC	GPIO_IO16	ALT0: GPIO2_IO16 ALT1: SAI3_TX_BCLK ALT2: PDM_BIT_STREAM02 ALT4: LPUART3_CTS_B ALT5: LPSP14_PCS2 ALT6: LPUART4_CTS_B ALT7: FLEXIO1_FLEXIO16	NVCC_GPIO	
E24					
E25	PCIE_CLKOUT_P	PCIE_REF_OUT_CLK_P			
E26	PCIE_CLKOUT_N	PCIE_REF_OUT_CLK_N			
E27	GPIO2_IO23	GPIO_IO23	ALT0: GPIO2_IO23 ALT1: USDHC3_CMD ALT2: SPDIF_OUT ALT3: CAN5_RX ALT4: TPM6_CH1 ALT6: LPI2C5_SCL ALT7: FLEXIO1_FLEXIO23	NVCC_GPIO	
E28	GPIO2_IO22	GPIO_IO22	ALT0: GPIO2_IO22 ALT1: USDHC3_CLK ALT2: SPDIF_IN ALT3: CAN5_TX ALT4: TPM5_CH1 ALT5: TPM6_EXTCLK ALT6: LPI2C5_SDA ALT7: FLEXIO1_FLEXIO22	NVCC_GPIO	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
E29	I2C4_SDA	GPIO_IO02	ALT0: GPIO2_IO02 ALT1: LPI2C4_SDA ALT4: LPSPi6_SOUT ALT5: LPUART5_CTS_B ALT6: LPI2C6_SDA ALT7: FLEXIO1_FLEXIO02	NVCC_GPIO	
F1	SD2_CMD	SD2_CMD	ALT0: USDHC2_CMD ALT1: NETC_TMR_1588_TRIG2 ALT2: I3C2_PUR ALT3: I3C2_PUR_B ALT4: FLEXIO1_FLEXIO02 ALT5: GPIO3_IO02	VDD_SDIO2	
F2	NC				
F3	NC				
F4	RF_I2S_DI				
F5	RF_I2S_MCK				
F6	RF_I2S_SCK				
F7	RF_I2S_LRCK				
F8	RF_I2S_DO				
F9	NC				
F10	NC				
F11	GPIO1_IO07	UART2_TXD	ALT0: LPUART2_TX ALT1: LPUART1_RTS_B ALT2: LPSPi2_SCK ALT3: TPM1_CH3 ALT5: GPIO1_IO07	NVCC_AON	This line is also connected to pad AC1. Internal 1K pull-up resistor.

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
F12	GPIO1_IO06	UART2_RXD	ALT0: LPUART2_RX ALT1: LPUART1_CTS_B ALT2: LPSPI2_SOUT ALT3: TPM1_CH2 ALT4: SAI1_MCLK ALT5: GPIO1_IO06	NVCC_AON	
F13	PCM_OUT				
F14	PCM_SYNC				
F15	NC				
F16	GND				
F17	3V3_RF				
F18	3V3_RF				
F19	NC				
F20	NC				
F21	GND				
F22	GND				
F23	NC				
F24	WL_DEV_WAKE				
F25	NC				
F26	NC				
F27	NC				
F28	I2C4_SCL	GPIO_IO03	ALT0: GPIO2_IO03 ALT1: LPI2C4_SCL	NVCC_GPIO	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT4: LPSPI6_SCK ALT5: LPUART5_RTS_B ALT6: LPI2C6_SCL ALT7: FLEXIO1_FLEXIO03		
F29	TAMPER1 (1V8)	TAMPER1		1V8	
G1	SD2_DATA0	SD2_DATA0	ALT0: USDHC2_DATA0 ALT1: NETC_TMR_1588_PP2 ALT2: CAN2_TX ALT4: FLEXIO1_FLEXIO03 ALT5: GPIO3_IO03	VDD_SDIO2	
G2	SD2_CD_B	SD2_CD_B	ALT0: USDHC2_CD_B ALT1: NETC_TMR_1588_TRIG1 ALT2: I3C2_SCL ALT4: FLEXIO1_FLEXIO00 ALT5: GPIO3_IO00	VDD_SDIO2	
G3	PCIE1_CLKIN_N	PCIE1_REF_PAD_CLK_N			
G4	PCIE1_CLKIN_P	PCIE1_REF_PAD_CLK_P			
G5	GND				
G6	PCIE1_RX0_N	PCIE1_RX0_N			
G7	PCIE1_RX0_P	PCIE1_RX0_P			
G8	GND				
G9	PCIE1_TX0_N	PCIE1_TX0_N			
G10	PCIE1_TX0_P	PCIE1_TX0_P			
G11	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
G12	BT_DEV_WAKE				
G13	PCM_CLK				
G14	PCM_IN				
G15	BT_I2S_DO				
G16	GND				
G17	BT_HOST_WAKE				
G18	WL_HOST_WAKE				
G19	GND				
G20	PCIE2_TX0_P	PCIE2_TX0_P			
G21	PCIE2_TX0_N	PCIE2_TX0_N			
G22	GND				
G23	PCIE2_RX0_P	PCIE2_RX0_P			
G24	PCIE2_RX0_N	PCIE2_RX0_N			
G25	GND				
G26	PCIE2_CLKIN_P	PCIE2_REF_PAD_CLK_P			
G27	PCIE2_CLKIN_N	PCIE2_REF_PAD_CLK_N			
G28	GND				
G29	TAMPER0 (1V8)	TAMPER0		1V8	
H1	SD2_DATA1	SD2_DATA1	ALT0: USDHC2_DATA1 ALT1: NETC_TMR_1588_CLK ALT2: CAN2_RX	VDD_SDIO2	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT4: FLEXIO1_FLEXIO04 ALT5: GPIO3_IO04		
H2	GND				
H3	GND				
H4	GND				
H5	GND				
H6	GND				
H7	GND				
H8	GND				
H9	GND				
H10	GND				
H11	GND				
H12	GND				
H13	GND				
H14	GND				
H15	GND				
H16	GND				
H17	GND				
H18	GND				
H19	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
H20	GND				
H21	GND				
H22	GND				
H23	GND				
H24	GND				
H25	GND				
H26	GND				
H27	GND				
H28	GND				
H29	GND				
J1	SD2_DATA2	SD2_DATA2	ALT0: USDHC2_DATA2 ALT1: NETC_TMR_1588_PP3 ALT2: MQS2_RIGHT ALT4: FLEXIO1_FLEXIO05 ALT5: GPIO3_IO05	VDD_SDIO2	
J29	ADC_IN4 (1V8)	ADC_IN4		1V8	
K1	SD2_DATA3	SD2_DATA3	ALT0: USDHC2_DATA3 ALT1: LPTMR2_ALT0 ALT2: MQS2_LEFT ALT3: NETC_TMR_1588_ALARM1 ALT4: FLEXIO1_FLEXIO06 ALT5: GPIO3_IO06	VDD_SDIO2	
K29	ADC_IN0 (1V8)	ADC_IN0		1V8	
L1	SD2_CLK	SD2_CLK	ALT0: USDHC2_CLK	VDD_SDIO2	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT1: NETC_TMR_1588_PP1 ALT2: I3C2_SDA ALT4: FLEXIO1_FLEXIO01 ALT5: GPIO3_IO01		
L29	ADC_IN1 (1V8)	ADC_IN1		1V8	
M1	GND				
M29	UART7_CTS	GPIO_IO10	ALT0: GPIO2_IO10 ALT1: LPSPi3_SOUT ALT4: TPM4_EXTCLK ALT5: LPUART7_CTS_B ALT6: LPI2C8_SDA ALT7: FLEXIO1_FLEXIO10	NVCC_GPIO	
N1	NVCC_SD2				Input power supply to the CPU, internally connected to PMIC regulator.
N29	UART7_RTS	GPIO_IO11	ALT0: GPIO2_IO11 ALT1: LPSPi3_SCK ALT4: TPM5_EXTCLK ALT5: LPUART7_RTS_B ALT6: LPI2C8_SCL ALT7: FLEXIO1_FLEXIO11	NVCC_GPIO	
P1	UART7_TX	GPIO_IO08	ALT0: GPIO2_IO08 ALT1: LPSPi3_PCS0 ALT4: TPM6_CH0 ALT5: LPUART7_TX ALT6: LPI2C7_SDA ALT7: FLEXIO1_FLEXIO08	NVCC_GPIO	
P29	CAN2_TX	GPIO_IO25	ALT0: GPIO2_IO25 ALT1: USDHC3_DATA1	NVCC_GPIO	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT2: CAN2_TX ALT4: TPM4_CH3 ALT5: JTAG_MUX_TCK ALT6: LPSPI7_PCS1 ALT7: FLEXIO1_FLEXIO25		
R1	UART7_RX	GPIO_IO09	ALT0: GPIO2_IO09 ALT1: LPSPI3_SIN ALT4: TPM3_EXTCLK ALT5: LPUART7_RX ALT6: LPI2C7_SCL ALT7: FLEXIO1_FLEXIO09	NVCC_GPIO	
R29	CAN2_RX	GPIO_IO27	ALT0: GPIO2_IO27 ALT1: USDHC3_DATA3 ALT2: CAN2_RX ALT4: TPM6_CH3 ALT5: JTAG_MUX_TMS ALT6: LPSPI5_PCS1 ALT7: FLEXIO1_FLEXIO27	NVCC_GPIO	
T1	GND				
T29	CAN1_TX	PDM_CLK	ALT0: PDM_CLK ALT1: MQS1_LEFT ALT4: LPTMR1_ALT0 ALT5: GPIO1_IO08 ALT6: CAN1_TX	NVCC_AON	
U1	NVCC_GPIO				Input power rail to the CPU.
U29	CAN1_RX	PDM_BIT_STREAM0	ALT0: PDM_BIT_STREAM00 ALT1: MQS1_RIGHT ALT2: LPSPI1_PCS1 ALT3: TPM1_EXTCLK ALT4: LPTMR1_ALT1	NVCC_AON	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT5: GPIO1_IO09 ALT6: CAN1_RX		
V1	I2C2_SCL	I2C2_SCL	ALT0: LPI2C2_SCL ALT1: I3C1_PUR ALT2: LPUART2_DCD_B ALT3: TPM2_CH2 ALT4: SAI1_RX_SYNC ALT5: GPIO1_IO02 ALT6: I3C1_PUR_B	NVCC_AON	
V29	UART1_RX	UART1_RXD	ALT0: LPUART1_RX ALT1: ELE_UART_RX ALT2: LPSP12_SIN ALT3: TPM1_CH0 ALT5: GPIO1_IO04	NVCC_AON	
W1	I2C2_SDA	I2C2_SDA	ALT0: LPI2C2_SDA ALT2: LPUART2_RIN_B ALT3: TPM2_CH3 ALT4: SAI1_RX_BCLK ALT5: GPIO1_IO03	NVCC_AON	
W29	UART1_TX	UART1_TXD	ALT0: LPUART1_TX ALT1: ELE_UART_TX ALT2: LPSP12_PCS0 ALT3: TPM1_CH1 ALT5: GPIO1_IO05	NVCC_AON	This line is also connected to pad AB1. Internal 100K pull-down.
Y1	GPIO2_IO29	GPIO_IO29	ALT0: GPIO2_IO29 ALT1: LPI2C3_SCL ALT2: CAN3_RX ALT3: FLEXIO1_FLEXIO29	NVCC_AON	
Y29	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AA1	RF_EN	GPIO_IO06	ALT0: GPIO2_IO06 ALT1: TPM5_CH0 ALT2: PDM_BIT_STREAM01 ALT4: LPSPI7_SOUT ALT5: LPUART6_CTS_B ALT6: LPI2C7_SDA ALT7: FLEXIO1_FLEXIO06	NVCC_GPIO	This signal is only externally available in non-wireless variants of the module.
AA29	GPIO5_IO12	GPIO_IO32	ALT0: GPIO5_IO12 ALT1: PCIE1_CLKREQ_B ALT2: LPUART6_TX ALT4: LPSPI4_PCS2	NVCC_GPIO	
AB1	UART1_TX	UART1_TXD	ALT0: LPUART1_TX ALT1: ELE_UART_TX ALT2: LPSPI2_PCS0 ALT3: TPM1_CH1 ALT5: GPIO1_IO05	NVCC_AON	BOOT_MODE0 line. This line is also connected to pad W29. Internal 100K pull-down.
AB29	GPIO5_IO13	GPIO_IO33	ALT0: GPIO5_IO13 ALT2: LPUART6_RX ALT4: LPSPI4_PCS1	NVCC_GPIO	
AC1	UART2_TX	UART2_TXD	ALT0: LPUART2_TX ALT1: LPUART1_RTS_B ALT2: LPSPI2_SCK ALT3: TPM1_CH3 ALT5: GPIO1_IO07	NVCC_AON	BOOT_MODE1 line. This line is also connected to pad F11. Internal 1K pull-up resistor.
AC29	GPIO5_IO14	GPIO_IO34	ALT0: GPIO5_IO14 ALT2: LPUART6_CTS_B ALT4: LPSPI4_PCS0	NVCC_GPIO	
AD1	SPI1_CS0	SAI1_TXFS	ALT0: SAI1_TX_SYNC ALT1: SAI1_TX_DATA01 ALT2: LPSPI1_PCS0	NVCC_AON	BOOT_MODE2 line. This line is also connected to pad C17.

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT3: LPUART2_DTR_B ALT4: MQS1_LEFT ALT5: GPIO1_IO11		Internal 100K pull-down resistor.
AD29	GPIO5_IO15	GPIO_IO35	ALT0: GPIO5_IO15 ALT1: PCIE2_CLKREQ_B ALT2: LPUART6_RTS_B ALT4: LPSPI4_SIN	NVCC_GPIO	
AE1	SPI1_SCK	SAI1_TXD0	ALT0: SAI1_TX_DATA00 ALT1: LPUART2_RTS_B ALT2: LPSPI1_SCK ALT3: LPUART1_DTR_B ALT4: CAN1_TX ALT5: GPIO1_IO13	NVCC_AON	BOOT_MODE3 line. This line is also connected to pad E17. Internal 100K pull-down resistor.
AE29	GPIO5_IO16	GPIO_IO36	ALT0: GPIO5_IO16 ALT2: LPUART7_TX ALT4: LPSPI4_SOUT	NVCC_GPIO	
AF1	GPIO4_IO14	ENET2_MDC	ALT0: NETC_MDC ALT1: LPUART4_DCD_B ALT2: SAI2_RX_SYNC ALT4: FLEXIO2_FLEXIO14 ALT5: GPIO4_IO14	1V8	
AF2	GND				
AF3	NC				
AF4	GND				
AF5	GND				
AF6	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AF7	GND				
AF8	NC				
AF9	NC				
AF10	GND				
AF11	NC				
AF12	NC				
AF13	GND				
AF14	LVDS1_CLK_P	LVDS1_CLK_P			
AF15	LVDS1_CLK_N	LVDS1_CLK_N			
AF16	GND				
AF17	LVDS1_D0_P	LVDS1_D0_P			
AF18	LVDS1_D0_N	LVDS1_D0_N			
AF19	GND				
AF20	LVDS1_D1_P	LVDS1_D1_P			
AF21	LVDS1_D1_N	LVDS1_D1_N			
AF22	GND				
AF23	LVDS1_D2_P	LVDS1_D2_P			
AF24	LVDS1_D2_N	LVDS1_D2_N			
AF25	GND				
AF26	LVDS1_D3_P	LVDS1_D3_P			

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AF27	LVDS1_D3_N	LVDS1_D3_N			
AF28	GND				
AF29	NC				
AG1	GPIO4_IO15	ENET2_MDIO	ALT0: NETC_MDIO ALT1: LPUART4_RIN_B ALT2: SAI2_RX_BCLK ALT4: FLEXIO2_FLEXIO15 ALT5: GPIO4_IO15	1V8	
AG2	GND				
AG3	NC				
AG4	ETH_TX0_P	ETH_TX0_P	ETH_TX0_P		
AG5	ETH_TX0_N	ETH_TX0_N	ETH_TX0_N		
AG6	ETH_RX0_P	ETH_RX0_P	ETH_RX0_P		
AG7	ETH_RX0_N	ETH_RX0_N	ETH_RX0_N		
AG8	XSPI1_DATA3	XSPI1_DATA3	ALT0: FLEXSPI1_A_DATA03 ALT1: SAI2_TX_DATA07 ALT2: SAI4_RX_DATA00 ALT4: XSPI_DATA03 ALT5: GPIO5_IO03	1V8	
AG9	XSPI1_DATA1	XSPI1_DATA1	ALT0: FLEXSPI1_A_DATA01 ALT1: SAI2_TX_DATA05 ALT2: SAI4_TX_SYNC ALT3: SAI4_TX_DATA01 ALT4: XSPI_DATA01 ALT5: GPIO5_IO01	1V8	
AG10	XSPI1_SS1_B	XSPI1_SS1_B	ALT0: FLEXSPI1_A_SS1_B	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT1: SAI5_RX_BCLK ALT2: SAI5_TX_DATA03 ALT3: SAI2_RX_DATA07 ALT5: GPIO5_IO11		
AG11	XSPI1_DATA0	XSPI1_DATA0	ALT0: FLEXSPI1_A_DATA00 ALT1: SAI2_TX_DATA04 ALT2: SAI4_TX_BCLK ALT3: SAI4_RX_DATA01 ALT4: XSPI_DATA00 ALT5: GPIO5_IO00	1V8	
AG12	XSPI1_DQS	XSPI1_DQS	ALT0: FLEXSPI1_A_DQS ALT1: SAI5_RX_SYNC ALT2: SAI5_TX_DATA02 ALT3: SAI2_RX_DATA06 ALT4: XSPI_DQS ALT5: GPIO5_IO08	1V8	
AG13	XSPI1_SS0_B	XSPI1_SS0_B	ALT0: FLEXSPI1_A_SS0_B ALT1: SAI2_RX_DATA05 ALT2: SAI4_RX_BCLK ALT3: EARC_CEC_OUT ALT4: XSPI_CS ALT5: GPIO5_IO10	1V8	
AG14	XSPI1_DATA2	XSPI1_DATA2	ALT0: FLEXSPI1_A_DATA02 ALT1: SAI2_TX_DATA06 ALT2: SAI4_TX_DATA00 ALT4: XSPI_DATA02 ALT5: GPIO5_IO02	1V8	
AG15	XSPI1_SCLK	XSPI1_SCLK	ALT0: FLEXSPI1_A_SCLK ALT1: SAI2_RX_DATA04 ALT2: SAI4_RX_SYNC ALT3: EARC_DC_HPD_IN	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT4: XSPI_CLK ALT5: GPIO5_IO09		
AG16	GND				
AG17	NC				
AG18	ONOFF	ONOFF			ON/OFF signal from the CPU. Active low with internal pull-up.
AG19	NC				
AG20	JTAG_TCK (1V8)	DAP_TCLK_SWCLK	ALT0: JTAG_MUX_TCK ALT2: CAN4_RX ALT4: FLEXIO1_FLEXIO30 ALT5: GPIO3_IO30 ALT6: LPUART5_CTS_B	1V8	Used internally for Bluetooth in wireless variants of the module.
AG21	JTAG_TDO (1V8)	DAP_TDO_TRACESWO	ALT0: JTAG_MUX_TDO ALT1: MQS2_RIGHT ALT2: NETC_TMR_1588_ALARM2 ALT3: CAN2_RX ALT4: FLEXIO1_FLEXIO31 ALT5: GPIO3_IO31 ALT6: LPUART5_TX	1V8	Used internally for Bluetooth in wireless variants of the module.
AG22	RESERVED				
AG23	GND				
AG24	NC				
AG25	GPIO2_IO07	GPIO_IO07	ALT0: GPIO2_IO07 ALT1: LPSP13_PCS1 ALT4: LPSP17_SCK ALT5: LPUART6_RTS_B	NVCC_GPIO	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT6: LPI2C7_SCL ALT7: FLEXIO1_FLEXIO07		
AG26	ADC_IN3 (1V8)	ADC_IN3		1V8	
AG27	ADC_IN2 (1V8)	ADC_IN2		1V8	
AG28	GPIO4_IO29	CCM_CLKO4	ALT0: CLKO_4 ALT1: NETC_TMR_1588_PP2 ALT2: CAN3_RX ALT4: FLEXIO2_FLEXIO29 ALT5: GPIO4_IO29	1V8	
AG29	NC				
AH1	1V8				
AH2	1V8				
AH3	1V8				
AH4	GND				
AH5	GND				
AH6	NC				
AH7	RESERVED				
AH8	GND				
AH9	EARC_AUX	EARC_AUX			
AH10	POR_B	POR_B			
AH11	EARC_N_HPD	EARC_N_HPD			
AH12	RESERVED				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AH13	NC				
AH14	GND				
AH15	LVDS0_D2_P	LVDS0_D2_P			
AH16	LVDS0_D2_N	LVDS0_D2_N			
AH17	GND				
AH18	PF53_SOC_PG				
AH19	GND				
AH20	PF53_ARM_PG				
AH21	GND				
AH22	PF09_PG				
AH23	NC				
AH24	NC				
AH25	NC				
AH26	NC				
AH27	JTAG_TDI (1V8)	DAP_TDI	ALT0: JTAG_MUX_TDI ALT1: MQS2_LEFT ALT2: NETC_TMR_1588_ALARM1 ALT3: CAN2_TX ALT4: FLEXIO2_FLEXIO30 ALT5: GPIO3_IO28 ALT6: LPUART5_RX	1V8	Used internally for Bluetooth in wireless variants of the module.
AH28	JTAG_TMS (1V8)	DAP_TMS_SWDIO	ALT0: JTAG_MUX_TMS ALT2: CAN4_TX	1V8	Used internally for Bluetooth in wireless variants of the

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
			ALT4: FLEXIO2_FLEXIO31 ALT5: GPIO3_IO29 ALT6: LPUART5_RTS_B		module.
AH29	GPIO5_IO17	GPIO_IO37	ALT0: GPIO5_IO17 ALT2: LPUART7_RX ALT4: LPSPI4_SCK	NVCC_GPIO	
AJ1	GND				
AJ2	VSYS2				
AJ3	VSYS2				
AJ4	VSYS2				
AJ5	GND				
AJ6	ETH_CLKIN_P	ETH_REF_PAD_CLK_P			
AJ7	GND				
AJ8	EARC_P_UTIL	EARC_P_UTIL			
AJ9	GND				
AJ10	NC				
AJ11	PMIC_STBY	PMIC_STBY_REQ			
AJ12	PMIC_ON	PMIC_ON_REQ			
AJ13	RESERVED				
AJ14	GND				
AJ15	LVDS0_D0_N	LVDS0_D0_N			

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AJ16	LVDS0_D0_P	LVDS0_D0_P			
AJ17	GND				
AJ18	LVDS0_CLK_P	LVDS0_CLK_P			
AJ19	LVDS0_CLK_N	LVDS0_CLK_N			
AJ20	GND				
AJ21	XSPI1_DATA4	XSPI1_DATA4	ALT0: FLEXSPI1_A_DATA04 ALT1: SAI5_TX_DATA00 ALT2: SAI5_RX_DATA01 ALT4: XSPI_DATA04 ALT5: GPIO5_IO04	1V8	
AJ22	XSPI1_DATA5	XSPI1_DATA5	ALT0: FLEXSPI1_A_DATA05 ALT1: SAI5_TX_SYNC ALT2: SAI5_RX_DATA02 ALT3: SAI2_RX_DATA06 ALT4: XSPI_DATA05 ALT5: GPIO5_IO05	1V8	
AJ23	XSPI1_DATA6	XSPI1_DATA6	ALT0: FLEXSPI1_A_DATA06 ALT1: SAI5_TX_BCLK ALT2: SAI5_RX_DATA03 ALT3: SAI2_RX_DATA07 ALT4: XSPI_DATA06 ALT5: GPIO5_IO06	1V8	
AJ24	XSPI1_DATA7	XSPI1_DATA7	ALT0: FLEXSPI1_A_DATA07 ALT1: SAI5_RX_DATA00 ALT2: SAI5_TX_DATA01 ALT4: XSPI_DATA07 ALT5: GPIO5_IO07	1V8	

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AJ25	NC				
AJ26	GND				
AJ27	NC				
AJ28	NC				
AJ29	GPIO2_IO31	GPIO_IO31	ALT0: GPIO2_IO31 ALT1: LPI2C4_SCL ALT2: CAN5_RX ALT7: FLEXIO1_FLEXIO31	NVCC_GPIO	
AK1	3V3				
AK2	VSYS2				
AK3	VSYS2				
AK4	VSYS2				
AK5	GND				
AK6	ETH_CLKIN_N	ETH_REF_PAD_CLK_N			
AK7	GND				
AK8	NC				
AK9	NC				
AK10	GND				
AK11	NC				
AK12	GND				
AK13	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AK14	GND				
AK15	LVDS0_D1_N	LVDS0_D1_N			
AK16	LVDS0_D1_P	LVDS0_D1_P			
AK17	GND				
AK18	LVDS0_D3_P	LVDS0_D3_P			
AK19	LVDS0_D3_N	LVDS0_D3_N			
AK20	GND				
AK21	MIPI_CSI1_DATA3_P	MIPI_CSI1_D3_P			
AK22	MIPI_CSI1_DATA3_N	MIPI_CSI1_D3_N			
AK23	GND				
AK24	I2C3_SDA	GPIO_IO00	ALT0: GPIO2_IO00 ALT1: LPI2C3_SDA ALT4: LPSPi6_PCS0 ALT5: LPUART5_TX ALT6: LPI2C5_SDA ALT7: FLEXIO1_FLEXIO00	NVCC_GPIO	
AK25	I2C3_SCL	GPIO_IO01	ALT0: GPIO2_IO01 ALT1: LPI2C3_SCL ALT4: LPSPi6_SIN ALT5: LPUART5_RX ALT6: LPI2C5_SCL ALT7: FLEXIO1_FLEXIO01	NVCC_GPIO	
AK26	NC				
AK27	NC				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AK28	NC				
AK29	GPIO2_IO30	GPIO_IO30	ALT0: GPIO2_IO30 ALT1: LPI2C4_SDA ALT2: CAN5_TX ALT7: FLEXIO1_FLEXIO30	NVCC_GPIO	
AL2	3V3				
AL3	3V3				
AL4	GND				
AL5	GND				
AL6	VSYS				
AL7	VSYS				
AL8	VSYS				
AL9	GND				
AL10	GND				
AL11	NC				
AL12	MIPI_CSI1_DATA1_P	MIPI_CSI1_D1_P			
AL13	MIPI_CSI1_DATA1_N	MIPI_CSI1_D1_N			
AL14	GND				
AL15	MIPI_CSI1_DATA0_P	MIPI_CSI1_D0_P			
AL16	MIPI_CSI1_DATA0_N	MIPI_CSI1_D0_N			
AL17	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AL18	GPIO3_I026	CCM_CLKO1	ALT0: CLKO_1 ALT1: NETC_TMR_1588_TRIG1 ALT4: FLEXIO1_FLEXIO26 ALT5: GPIO3_I026	1V8	
AL19	RESERVED				
AL20	GPIO2_I028	GPIO_I028	ALT0: GPIO2_I028 ALT1: LPI2C3_SDA ALT2: CAN3_TX ALT7: FLEXIO1_FLEXIO28	NVCC_GPIO	
AL21	ADC_IN5 (1V8)	ADC_IN5		1V8	
AL22	ADC_IN6 (1V8)	ADC_IN6		1V8	
AL23	ADC_IN7 (1V8)	ADC_IN7		1V8	
AL24	NC				
AL25	NC				
AL26	NC				
AL27	NC				
AL28	NC				
AM3	3V3				
AM4	3V3				
AM5	GND				
AM6	GND				
AM7	NC				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AM8	NC				
AM9	NC				
AM10	CLKIN1	CLKIN1			
AM11	CLKIN2	CLKIN2			
AM12	GND				
AM13	MIPI_CSI1_CLK_P	MIPI_CSI1_CLK_P			
AM14	MIPI_CSI1_CLK_N	MIPI_CSI1_CLK_N			
AM15	GND				
AM16	MIPI_CSI1_DATA2_P	MIPI_CSI1_D2_P			
AM17	MIPI_CSI1_DATA2_N	MIPI_CSI1_D2_N			
AM18	GND				
AM19	RESERVED				
AM20	GND				
AM21	NC				
AM22	NC				
AM23	NC				
AM24	NC				
AM25	NC				
AM26	NC				
AM27	NC				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AN4	BT_REG_EN	GPIO_IO18	ALT0: GPIO2_IO18 ALT1: SAI3_RX_BCLK ALT4: LPSP15_PCS0 ALT5: LPSP14_PCS0 ALT6: TPM5_CH2 ALT7: FLEXIO1_FLEXIO18	NVCC_GPIO	This signal is only externally available in non-wireless variants of the module.
AN5	RESERVED				
AN6	MIPI_DSI1_CLK_N	MIPI_DSICSI1_CLK_N			
AN7	MIPI_DSI1_CLK_P	MIPI_DSICSI1_CLK_P			
AN8	GND				
AN9	MIPI_DSI1_DATA0_N	MIPI_DSICSI1_DATA0_N			
AN10	MIPI_DSI1_DATA0_P	MIPI_DSICSI1_DATA0_P			
AN11	GND				
AN12	MIPI_DSI1_DATA1_N	MIPI_DSICSI1_DATA1_N			
AN13	MIPI_DSI1_DATA1_P	MIPI_DSICSI1_DATA1_P			
AN14	GND				
AN15	MIPI_DSI1_DATA2_N	MIPI_DSICSI1_DATA2_N			
AN16	MIPI_DSI1_DATA2_P	MIPI_DSICSI1_DATA2_P			
AN17	GND				
AN18	MIPI_DSI1_DATA3_N	MIPI_DSICSI1_DATA3_N			
AN19	MIPI_DSI1_DATA3_P	MIPI_DSICSI1_DATA3_P			
AN20	GND				

LGA pad name	ConnectCore 95 signal name	i.MX95 pin name*	Multiplexing	Power group	Comments
AN21	NVCC_AON				Input power rail to the CPU.
AN22	NC				
AN23	NC				
AN24	NC				
AN25	SYS_RESET				Input reset line of the module. Active low with internal pull-up.
AN26	NC				

Module specifications

The following sections describe the specifications for the ConnectCore 95 SMTPlus SOM.

Mechanical specifications	82
Environmental specifications	82
Socket options	82

Mechanical specifications

The ConnectCore 95 SMTPlus SOM has the same form factor and mechanical specifications as the ConnectCore 93/8X/8M. Refer to the [ConnectCore 8M Nano Hardware Reference Manual](#) for more details.

Environmental specifications

Operating temperature: -40 to 85 °C.



CAUTION! Your final product may require additional thermal management such as passive (heatsink/spreader) or active (airflow) cooling to achieve the maximum operating temperature without exceeding the processor junction temp limit.

Socket options

For testing, prototyping, and other primarily development-related purposes, Digi International and E-tec Interconnect AG have developed sockets allowing the easy insertion and removal of modules in a carrier board design.

All drawings, user instructions, schematics and PCB footprints are posted on the ConnectCore 95 technical support website.

Note The ConnectCore 95 Development Board (Digi P/N CC-WMX95-KIT) has been designed to support a LPF474-129-32ACEW55L socket, and can be used as a reference design.

All sockets are sold and built by [E-tec Interconnect AG](#). The table below provides an overview of the available part numbers.

Socket model	E-tec part number
ConnectCore 95 Castellated	LPQ118-1290-32AAEW55L rev1
ConnectCore 95 LGA	LPF474-129M-32ACEW55L rev1

Note Please direct all socket-related purchase inquiries to E-tec Interconnect AG (info@e-tec.com).