What is the difference between LA-2729 and LA-3770?

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The LA-2729 and LA-3770 are both IDC20A-to-MIPI converters, but they differ in the signal assignment of the upper 10 pins of the MIPI-20 connector.

- LA-2729: converts IDC20A to MIPI-10/20T
- LA-3770: converts IDC20A to MIPI-10/20/34

Key differences:

- **LA-2729** uses a **MIPI-20T** connector with the following pin mapping:
  - Pin 12 = TRACECLK
  - Pin 14 = TRACEDATA[0]
  - Pin 16 = TRACEDATA[1]
  - Pin 18 = TRACEDATA[2]
  - Pin 20 = TRACEDATA[3]

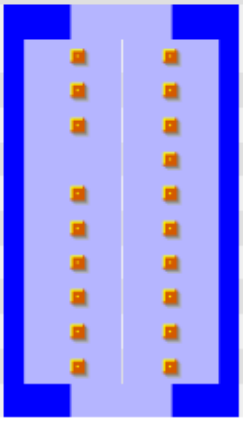
Pinout MIPI-20T Connector

Signal	Pin	Pin	Signal
VREF-DEBUG	1	2	TMS|TMSC|SWDIO
GND	3	4	TCK|TCKC|SWCLK
GND	5	6	TDO|-|SWO
GND (KEY)	7	8	TDI
GND	9	10	RESET-
GND	11	12	TRACECLK
GND	13	14	TRACEDATA[0]
GND	15	16	TRACEDATA[1]
GND	17	18	TRACEDATA[2]
GND	19	20	TRACEDATA[3]

Note
This converter does not connect the trace pins of a CoreSight MIPI20T connector since they are not used by IDC20A debug cables. Whereas tracing via SWO/SWV is supported.

- **LA-3770** uses a **MIPI-20D** connector with the following pin mapping:
    - Pin 12 = RTCK
    - Pin 14 = TRST-PULLDOWN
    - Pin 16 = TRST-
    - Pin 18 = EDBGRQ (EMU0)
    - Pin 20 = DBGACK (EMU1)

Pinout MIPI-20D Connector

Signal	Pin		Pin	Signal
VREF-DEBUG	1		2	TMS|TMSC|SWDIO
GND	3		4	TCK|TCKC|SWCLK
GND	5		6	TDO|-|SWO
GND (KEY)	7		8	TDI
GND	9		10	RESET-
GND	11		12	RTCK
GND	13		14	TRST- PULLDOWN
GND	15		16	TRST-
GND	17		18	EDBGRQ (EMU0)
GND	19		20	DBGACK (EMU1)

Notes

- Most evaluation boards use a MIPI-20T pinout.
- LA-3770 can be reconfigured (solder bridges) for MIPI-20T.

For further details, refer to the Arm Debug and Trace Interface Specification.