

## нокия 3410

### Test Flash-Connector (X201)

The Test Flash-Connector is used as a flash programming interface for updating (i.e. re-programming) the flash program memory and as an electrical interface for access to the engine by service-tool (e.g. WinTesla). This Interface is typically used by Aftersale via a 'HDA12 Service battery' and by the FINUI- and Label- stations in the factory.

The Connector is made as 4 Test Pads which are accessible through the mechanic of the phone when the Battery is removed.

When the flash programming-tool is connected to the phone (via 'Service battery'), supply power is provided through the battery contacts and the phone is powered up with an IBI-pulse given to the BTEMP line.

**Note:** ESD protection is applied to all pads of X201.

**Table 2: Test Flash-Connector Electrical Specification**

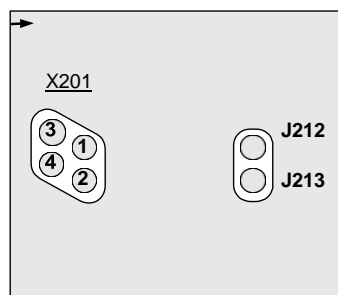
Pin	Name	Parameter	Min	Typ	Max	Unit	Remark
1	FBUS_TX	Data ack. to the Prommer	0 2.24	logic low logic high	0.62 2.85	V	Transmit Data from MAD2WD1 (AccTxData) to Prommer (@ VBB=2,85V)
2	FBUS_RX	Serial data from the Prommer	0 1,68	logic low logic high	0.84 2.85	V	Receive Data from Prommer to MAD2WD1 (AccRxData) (@ VBB=2,85V)
3	GND	GND	0		0	V	Ground
4	MBUS	Serial clock from the Prommer	0 1,68	logic low logic high	0.84 2.85	V	Prommer detection and Serial Clock for synch. Comm. to MAD2WD1 (MBUS) (@ VBB=2,85V)

### VPP/ VPP\_GND Connector (For Label Station)

To speed up Flash-programming at the Label station in the Production, +12V for VPP and VPP\_GND are accessible through the mechanic of the phone, when the battery is removed. The label from the Label-station hides the pads after use.

**Table 3: VPP/VPP\_GND Connector**

Pin	Name	Parameter	Min	Typ	Max	Unit	Remark
J212	VPP	Flash Prog. Volt.	11.4	12.0	12.6	V	Intel Spec. (Worst-case)
J213	VPP_GND		0		0	V	Connect to GND when VPP= +12V



## Production Flash-Connector (X202)

The HDA12 is made in panels of the DCT4 panel-standard. This panel-standard has no space for Production Flash connections, so the Production Flash I/F is placed on the Phone itself.

The Production Flash-Connector includes the same connections as the Test Flash-Connector plus some more as described in table 4.

The Connector is made as eight Test Pads, which are accessible from the Keyboard-side of the PCB, only when the phone is without mechanical covers.

**Table 4: Production Flash Connector Electrical Specification**

Pin	Name	Parameter	Min	Typ	Max	Unit	Remark
1	CHRGR+	Charger input	0	8.4	12	V	DC input
2	VPP	Flash Programming voltage	11.4	12.0	12.6	V	Intel Spec. (Worst case)
3	MBUS	Serial clock from the Prommer	0 1,68	logic low logic high	0.84 2.85	V	Prommer detection and Serial Clock for synch. Comm. MAD2WD1 (MBUS) (@ VBB=2,85V)
4	GND	Signal Ground	0		0	V	Signal Ground is connected directly to GND.
6	VPP_GND		0		0	V	Connect to GND when +12V is applied to VPP. This is to protect MAD2WD1 VPP output from excessive Voltages.
7	FBUS_TX	Data ack. to the Prommer	0 2.24	logic low logic high	0.62 2.85	V	Transmit Data from MAD2WD1 (AccTxData) to Prommer (@ VBB=2,85V)
8	FBUS_RX	Serial data from the Prommer	0 1,68	logic low logic high	0.84 2.85	V	Receive Data from Prommer to MAD2WD1 (AccRxData) (@ VBB=2,85V)
9	WDDISX	Watchdog disable	0 VBATT-0.7V	logic low logic high	0.5 VBATT	V	Active low

The Figure below shows the lower part of the PCB Keyboard-side with the position and

**Fig. 5 X202, Production Flash-Connector**

