

## 1 Introduction

This document summarises the electrical and mechanical interfaces of the NCT-H4010 Modulator.

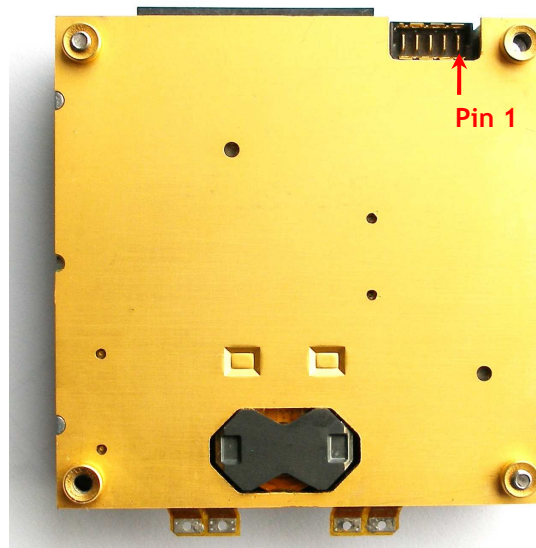
## 2 Input Power Supply

The input supply connector pin-out is summarised in **Table 1**, please refer to **Figure 1** to identify the pin locations.

The input supply connector of the NCT-H4010 Modulator mates with an ERNI MicroSpeed Power connector (ERNI part number: 214547).

Pin No	Symbol	Description
1	$V_a$	Auxiliary power supply input
2	$V_{sl}$	Main supply input 1
3	$V_{sh}$	Main supply input 2
4	GND	Ground
5	GND	Ground

**Table 1.** *Input Supply Connections of the NCT-H4010 Modulator.*



**Figure 1.** *Reference pin location of Input Supply Connector.*

## 3 Baseband Interface Connection

The baseband interface connector pinout of the NCT-H4010 is given in Table 2, for full details, please refer to [1].

Dir.	Type	Name	Pin No		Name	Type	Dir.
I	LVC MOS	AddrSel0	1	2	GND	-	-
I	LVC MOS	AddrSel1	3	4	I2C_SCL	I2C	I / OD
I	LVC MOS	TDDPowerSave	5	6	I2C_SDA	I2C	I / OD
O	OD	nHostInt	7	8	GND	-	-
-	-	GND	9	10	GND	-	-
I	LVDS	LVDS_CLKP	11	12	LVDS_CLKN	LVDS	I
-	-	GND	13	14	GND	-	-
I	LVDS	LVDS_DP0	15	16	LVDS_DN0	LVDS	I
I	LVDS	LVDS_DP1	17	18	LVDS_DN1	LVDS	I
I	LVDS	LVDS_DP2	19	20	LVDS_DN2	LVDS	I
I	LVDS	LVDS_DP3	21	22	LVDS_DN3	LVDS	I
I	LVDS	LVDS_DP4	23	24	LVDS_DN4	LVDS	I
-	-	GND	25	26	GND	-	-
I	LVDS	LVDS_DP5	27	28	LVDS_DN5	LVDS	I
I	LVDS	LVDS_DP6	29	30	LVDS_DN6	LVDS	I
-	-	GND	31	32	GND	-	-
I	LVDS	LVDS_DP7	33	34	LVDS_DN7	LVDS	I
I	LVDS	LVDS_DP8	35	36	LVDS_DN8	LVDS	I
-	-	GND	37	38	GND	-	-
I	LVDS	LVDS_DP9	39	40	LVDS_DN9	LVDS	I
I	LVDS	LVDS_DP10	41	42	LVDS_DN10	LVDS	I
I	LVDS	LVDS_DP11	43	44	LVDS_DN11	LVDS	I
I	LVDS	LVDS_DP12	45	46	LVDS_DN12	LVDS	I
I	LVDS	LVDS_DP13	47	48	LVDS_DN13	LVDS	I
O	OD	nResetOut	49	50	nResetIn	LVC MOS	I

I:Input, O:Output, OD:Open Drain

Table 2. NCT-H4010 Baseband Interface pin-out.

The connector emerges horizontally from the modulator to mate with a cable connector, part number: ERNI 024403. Reference pin locations are given in Figure 2.

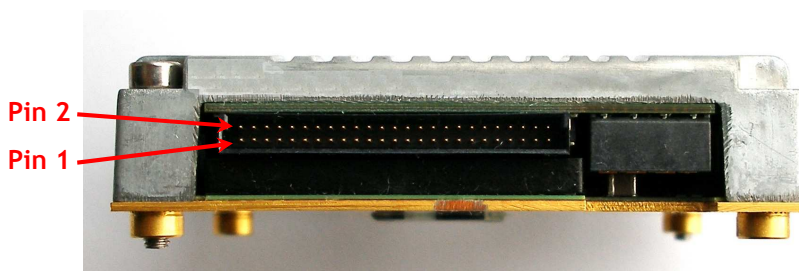


Figure 2. Reference pin location of the Baseband Interface connector.

## 4 Mechanical Interface

The NCT-H4010 Modulator is housed in the HMP-2 package. An overview of the package is shown in Figure 3, for a complete mechanical drawing please refer to [2].

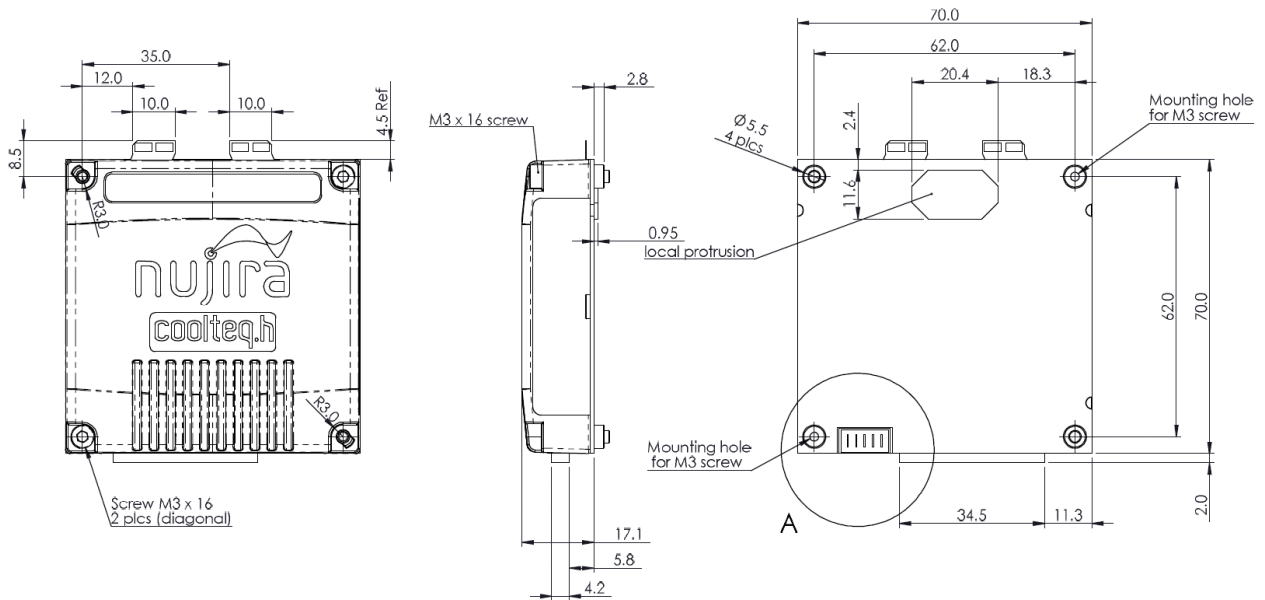


Figure 3. Overview of NCT-H4010 package mechanics.

## 5 References

- [1] PD002091 coolteq.h Modulator Baseband Interface Physical Specification, Nujira Ltd.
- [2] HMP-2 Package Drawing, DA100700.E.3.DD163, Nujira Ltd.

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