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FT6601 Product Manual

6CH LIN, 3KV Isolation Voltage , 19.2Kb/s



History list

Version	Date	Content
1.0	2023/3/30	First release

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Products Feature

- Baud rate up to 20Kb/s
- Number of channels: 6 channels isolated LIN interface
- Complies with LIN 2.x/ISO 17987-4:2016 (12 V)/SAE J2602 protocol
- Interface electrical isolation 1500VDC
- The baud rate of LIN communication can be arbitrarily programmable between 1 Kb/s and 20 Kb/s
- Enslaver and secondary nodes can be switched by software control
- Each LIN channel can supply 12V and 100mA power to external devices
- Support FTStudio, LabVIEW, Visual Studio and other languages for secondary development

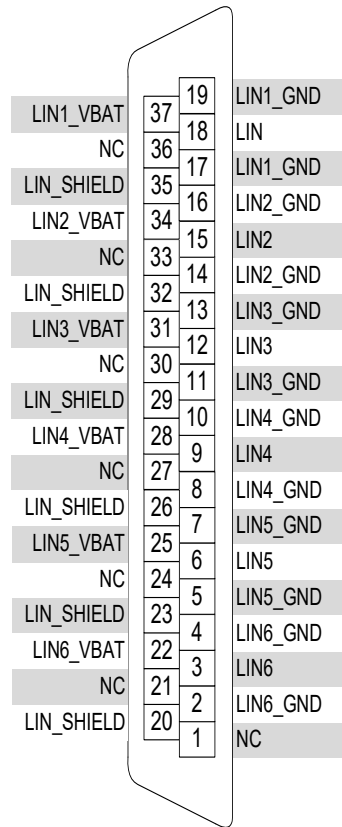
Overview

Fidas LIN Transceiver board is the Ethernet Fidas family of products. The Fidas LIN Transceiver board provides six completely independent isolated LIN channels, It conforms to LIN 2.x (LIN 2.0, LIN 2.1, LIN 2.2, LIN 2.2a)/ ISO 17987-4:2016 (12 V)/SAE J2602 protocol standards and supports transfer rates up to 20kBd. 1500V DC power isolation module is used to enhance the reliability of the system's reliability in harsh environments.

System Support: Windows XP/Win7/10 Linux

Software compatible: LabVIEW Visual Studio FT Studio

Interface Definition



LIN channel	Pin	Signal	Description
LIN1	37	VBAT	Power output or input: 1) 12V voltage output, maximum current 100mA, if the external equipment has its own power supply, no connection 2) If the external LIN device voltage is greater than 12V, the external LIN bus voltage is required, and the voltage range is 12V~24V
	18	LIN	LIN signal line
	17	LIN_GND	Place of reference
	19	LIN_GND	Place of reference
	35	LIN_SHIELD	Shield wire
	36	NC	——
LIN2	34	VBAT	Power output or input: 1) 12V voltage output, maximum current 100mA, if the external equipment has its own power supply, no connection 2) If the external LIN device voltage is greater than 12V, the external LIN bus voltage is required, and the voltage range is 12V~24V
	15	LIN	LIN signal line
	14	LIN_GND	Place of reference
	16	LIN_GND	Place of reference
	32	LIN_SHIELD	Shield wire

	33	NC	——
LIN3	31	VBAT	Power output or input: 1) 12V voltage output, maximum current 100mA, if the external equipment has its own power supply, no connection 2) If the external LIN device voltage is greater than 12V, the external LIN bus voltage is required, and the voltage range is 12V~24V
	12	LIN	LIN signal line
	11	LIN_GND	Place of reference
	13	LIN_GND	Place of reference
	29	LIN_SHIELD	Shield wire
	30	NC	——
LIN4	28	VBAT	Power output or input: 1) 12V voltage output, maximum current 100mA, if the external equipment has its own power supply, no connection 2) If the external LIN device voltage is greater than 12V, the external LIN bus voltage is required, and the voltage range is 12V~24V
	9	LIN	LIN signal line
	8	LIN_GND	Place of reference
	10	LIN_GND	Place of reference
	26	LIN_SHIELD	Shield wire
	27	NC	——
LIN5	25	VBAT	Power output or input: 1) 12V voltage output, maximum current 100mA, if the external equipment has its own power supply, no connection 2) If the external LIN device voltage is greater than 12V, the external LIN bus voltage is required, and the voltage range is 12V~24V
	6	LIN	LIN signal line
	5	LIN_GND	Place of reference
	7	LIN_GND	Place of reference
	23	LIN_SHIELD	Shield wire
	24	NC	——
LIN6	22	VBAT	Power output or input: 1) 12V voltage output, maximum current 100mA, if the external equipment has its own power supply, no connection 2) If the external LIN device voltage is greater than 12V, the external LIN bus voltage is required, and the voltage range is 12V~24V
	3	LIN	LIN signal line
	2	LIN_GND	Place of reference
	4	LIN_GND	Place of reference
	20	LIN_SHIELD	Shield wire
	21	NC	——

Technical specification

Items	Description
Number of LIN channels	6 channels
LIN pin withstand voltage	-0.3V~24V
Power consumption	+12V: 825mA, +5V: 230mA
Output terminal terminal	DB37 Connector
LIN baud rate	1kBd~20kBd
Work environment ¹	temperature: -40℃~85℃, Relative humidity: 10%~90%RH
Storage environment	temperature: -40℃~85℃, Relative humidity: 5%~95%RH No condensation

Note 1: With respect to environmental adaptability

- 1) Ambient temperature:
 - a) Operating temperature: 0~55℃, meet the test standards IEC 60068-2-1 and IEC 60068-2-2
 - b) Storage temperature: -20~70℃, meet the test standards IEC 60068-2-1 and IEC 60068-2-2
- 2) Environmental humidity:
 - a) Working humidity: 10~90%, meet the test standards IEC 60068-2-1 and IEC 60068-2-2
 - b) Working humidity: 5~95%, meet the test standards IEC 60068-2-1 and IEC 60068-2-2
- 3) Suitable for indoor applications only

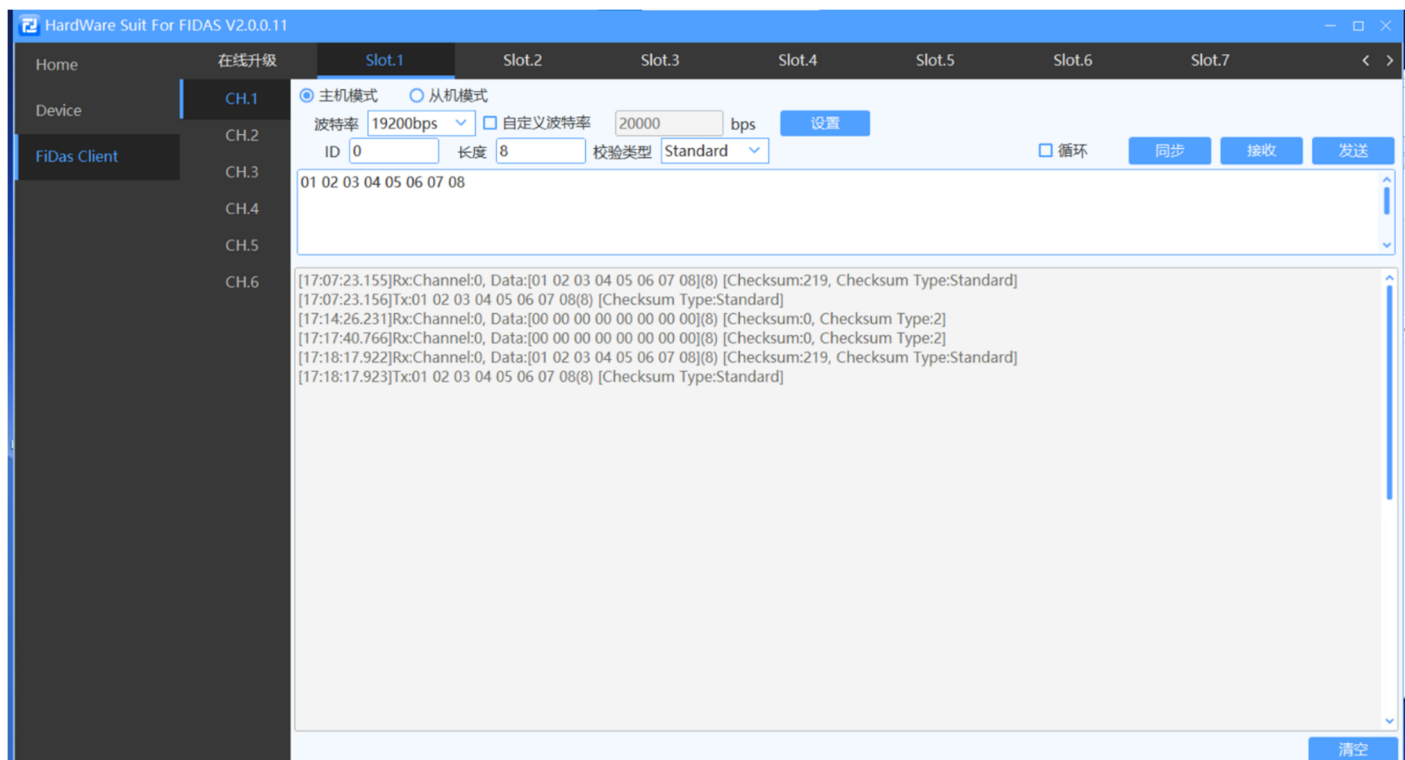
Use of the free debugging tool HWSuit

The HWSuit tool can be downloaded from the official website of www.finetooling.com

HWSuit version: Please download HWSuit V3.5.8.0 or later.

Steps to Use

- After the Fidas host device is connected, open the corresponding slot according to the expansion card position sequence number.
- CH1-CH6: Six completely independent isolated LIN channels.
- In host mode, it can send synchronous instructions, send host to receive instructions, and send instructions.
- In slave mode - Implement send instructions.
- Support to set baud rate, check type, ID, length, etc.



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