



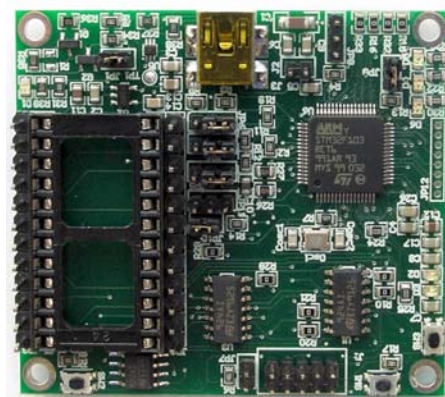
STEVAL-MKI109V2

eMotion: ST MEMS adapters motherboard based on the STM32F103RE compatible with all ST MEMS adapters

Data brief

Features

- Compatible with all available ST MEMS adapter boards
- Controlled by the STM32F103RET6 high-performance ARM Cortex™-M3 microcontroller
- Includes a DIL24 socket for easy MEMS adapter connection
- 3 V on-board linear voltage regulator
- DFU compatible for USB microprocessor firmware update
- USB 2.0 full-speed compliant
- Debugging connector for SWD/JTAG
- RoHS compliant



STEVAL-MKI109V2

Description

The STEVAL-MKI109V2 is a motherboard designed to provide users with a complete, ready-to-use platform for the evaluation of STMicroelectronics' MEMS products.

The board features a DIL24 socket to mount all available adapters for both digital and analog output MEMS devices.

The motherboard includes a high-performance 32-bit microcontroller, which functions as a bridge between the sensor and a PC, on which it is possible to use the downloadable graphical user interface (GUI), or dedicated software routines for customized applications.

Figure 1. Circuit schematic (1 of 2)

DIL24 Device Adapter

JP1 Header 12X2

JP2 Header 12X2

JP3 Header 12X2

JP4 Header 12X2

JP5 Header 12X2

JP6 Header 12X2

JP7 Header 12X2

JP8 Header 12X2

JP9 Header 12X2

JP10 Header 12X2

JP11 Header 12X2

JP12 Header 12X2

STM32F103RET6

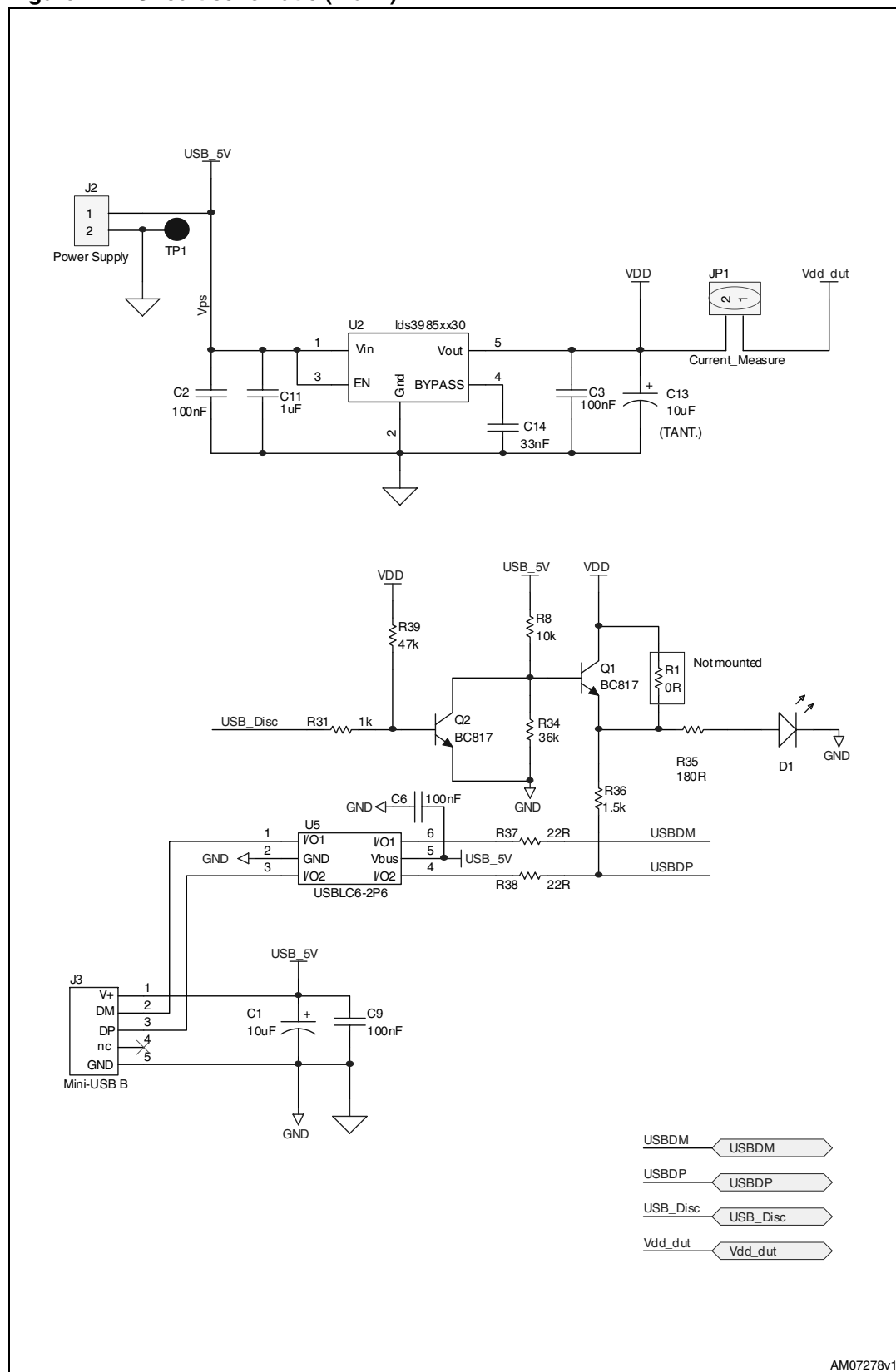
Pinout Table:

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
1	Vdd3	27	PC12	53	PC11	79	PC10
2	Vss3	28	PC13	54	PC12	80	PC11
3	PC13	29	PC14	55	PC13	81	PC12
4	PC14	30	PC15	56	PC14	82	PC13
5	PC15	31	PC16	57	PC15	83	PC14
6	PC16	32	PC17	58	PC16	84	PC15
7	PC17	33	PC18	59	PC17	85	PC16
8	PC18	34	PC19	60	PC18	86	PC17
9	PC19	35	PC20	61	PC19	87	PC18
10	PC20	36	PC21	62	PC20	88	PC19
11	PC21	37	PC22	63	PC21	89	PC20
12	PC22	38	PC23	64	PC22	90	PC21
13	PC23	39	PC24	65	PC23	91	PC22
14	PC24	40	PC25	66	PC24	92	PC23
15	PC25	41	PC26	67	PC25	93	PC24
16	PC26	42	PC27	68	PC26	94	PC25
17	PC27	43	PC28	69	PC27	95	PC26
18	PC28	44	PC29	70	PC28	96	PC27
19	PC29	45	PC30	71	PC29	97	PC28
20	PC30	46	PC31	72	PC30	98	PC29
21	PC31	47	PC32	73	PC31	99	PC30
22	PC32	48	PC33	74	PC32	100	PC31
23	PC33	49	PC34	75	PC33		
24	PC34	50	PC35	76	PC34		
25	PC35	51	PC36	77	PC35		
26	PC36	52	PC37	78	PC36		

Components:

- U1B, U1C, U1D, U1E, U1F, U1G, U1H, U1I, U1J, U1K, U1L, U1M, U1N, U1O, U1P, U1Q, U1R, U1S, U1T, U1U, U1V, U1W, U1X, U1Y, U1Z, U2A, U2B, U2C, U2D, U2E, U2F, U2G, U2H, U2I, U2J, U2K, U2L, U2M, U2N, U2O, U2P, U2Q, U2R, U2S, U2T, U2U, U2V, U2W, U2X, U2Y, U2Z, U3A, U3B, U3C, U3D, U3E, U3F, U3G, U3H, U3I, U3J, U3K, U3L, U3M, U3N, U3O, U3P, U3Q, U3R, U3S, U3T, U3U, U3V, U3W, U3X, U3Y, U3Z, U4A, U4B, U4C, U4D, U4E, U4F, U4G, U4H, U4I, U4J, U4K, U4L, U4M, U4N, U4O, U4P, U4Q, U4R, U4S, U4T, U4U, U4V, U4W, U4X, U4Y, U4Z, U5A, U5B, U5C, U5D, U5E, U5F, U5G, U5H, U5I, U5J, U5K, U5L, U5M, U5N, U5O, U5P, U5Q, U5R, U5S, U5T, U5U, U5V, U5W, U5X, U5Y, U5Z, U6A, U6B, U6C, U6D, U6E, U6F, U6G, U6H, U6I, U6J, U6K, U6L, U6M, U6N, U6O, U6P, U6Q, U6R, U6S, U6T, U6U, U6V, U6W, U6X, U6Y, U6Z, U7A, U7B, U7C, U7D, U7E, U7F, U7G, U7H, U7I, U7J, U7K, U7L, U7M, U7N, U7O, U7P, U7Q, U7R, U7S, U7T, U7U, U7V, U7W, U7X, U7Y, U7Z, U8A, U8B, U8C, U8D, U8E, U8F, U8G, U8H, U8I, U8J, U8K, U8L, U8M, U8N, U8O, U8P, U8Q, U8R, U8S, U8T, U8U, U8V, U8W, U8X, U8Y, U8Z, U9A, U9B, U9C, U9D, U9E, U9F, U9G, U9H, U9I, U9J, U9K, U9L, U9M, U9N, U9O, U9P, U9Q, U9R, U9S, U9T, U9U, U9V, U9W, U9X, U9Y, U9Z, U10A, U10B, U10C, U10D, U10E, U10F, U10G, U10H, U10I, U10J, U10K, U10L, U10M, U10N, U10O, U10P, U10Q, U10R, U10S, U10T, U10U, U10V, U10W, U10X, U10Y, U10Z, U11A, U11B, U11C, U11D, U11E, U11F, U11G, U11H, U11I, U11J, U11K, U11L, U11M, U11N, U11O, U11P, U11Q, U11R, U11S, U11T, U11U, U11V, U11W, U11X, U11Y, U11Z, U12A, U12B, U12C, U12D, U12E, U12F, U12G, U12H, U12I, U12J, U12K, U12L, U12M, U12N, U12O, U12P, U12Q, U12R, U12S, U12T, U12U, U12V, U12W, U12X, U12Y, U12Z, U13A, U13B, U13C, U13D, U13E, U13F, U13G, U13H, U13I, U13J, U13K, U13L, U13M, U13N, U13O, U13P, U13Q, U13R, U13S, U13T, U13U, U13V, U13W, U13X, U13Y, U13Z, U14A, U14B, U14C, U14D, U14E, U14F, U14G, U14H, U14I, U14J, U14K, U14L, U14M, U14N, U14O, U14P, U14Q, U14R, U14S, U14T, U14U, U14V, U14W, U14X, U14Y, U14Z, U15A, U15B, U15C, U15D, U15E, U15F, U15G, U15H, U15I, U15J, U15K, U15L, U15M, U15N, U15O, U15P, U15Q, U15R, U15S, U15T, U15U, U15V, U15W, U15X, U15Y, U15Z, U16A, U16B, U16C, U16D, U16E, U16F, U16G, U16H, U16I, U16J, U16K, U16L, U16M, U16N, U16O, U16P, U16Q, U16R, U16S, U16T, U16U, U16V, U16W, U16X, U16Y, U16Z, U17A, U17B, U17C, U17D, U17E, U17F, U17G, U17H, U17I, U17J, U17K, U17L, U17M, U17N, U17O, U17P, U17Q, U17R, U17S, U17T, U17U, U17V, U17W, U17X, U17Y, U17Z, U18A, U18

Figure 2. Circuit schematic (2 of 2)



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
03-Nov-2011	1	Initial release.

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