MC56F81000 EVALUATION KIT

GET TO KNOW THE MC56F81000-EVK

Power/
OpenSDA USB

Power/USB
Virtual Serial
Port

SW5   SW3
SW4   SW2

SW1
Reset

Adapter/
5 V Only

JTAG Port for
MC56F81768

JTAG Port
for K26

J2 I/O
Header

J3 I/O
Header

J1 I/O
Header

J4 I/O
Header

PWM LEDs   User LEDs
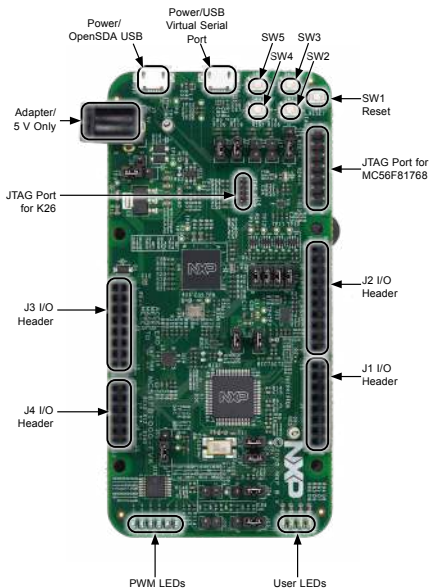
Figure 1: MC56F81000-EVK Callouts

Figure 2: MC56F81000-EVK Pin-Outs

NC-19   20-GC15
NC-17   18-GC14
ADC-MID-15   16-AREF
GB1_OPB1P-13 14-GND
GA1_OPA1P-11 12-GC9
GB2_RC-9   10-GC8
GA2_RC-7   8-GC10
GA3/GB3-RC-5 6-GE7
GB0_IN-3   4-GE6
GA0_IN-1   2-GF6

NC-2   1-GF1
VDD-4   3-GE7
RESET-6   5-GE4
VDD-8   7-GE5
P5V-10   9-GE2
GND-12   11-GE3
GND-14   13-GE0
P5V_DC_IN-16 15-GE1

NC-15   16-GC5
NC-13   14-GC7
NC-11   12-GF3
NC-9   10-GC4
NC-7   8-GF4
NC-5   6-GF5
GC8-3   4-GC2
NC-1   2-GC3

ANA3/3B-2   1-NC
GA4-4   3-NC
GA5-6   5-NC
GB1-8   7-NC
GB4-10   9-NC
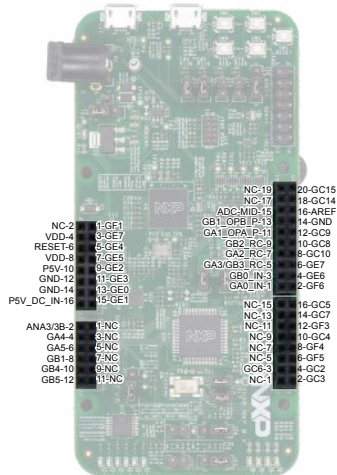GB5-12   11-NC

OPERATION NOTES

1. MC56F81000-EVK can be powered by either of the USB connectors (J12, J26) or the adapter input (J7). Beware that only an adapter with 5 V output can be used.

2. When the board is powered up, a green LED D2 will illuminate, indicating 3.3 V is on. If the board is powered by the USB connector (J12), an orange LED D4 will also illuminate, indicating K26 is powered.

3. J12 is the onboard OpenSDA (realized by K26) connector that can be used to debug/program 56F81768.

4. J26 is the virtual serial port connector, which can be used by ROM bootloader. CP210x USB to UART bridge VCP drivers are needed.

5. J10 is the JTAG connector for MC56F81768. Remember to remove the four jumpers on J13 when this JTAG is used. This is to avoid the impact of on-board OPenSDA circuit.

6. J14 is the JTAG connector for the K26 firmware update.

7. Device boot from flash after reset by default, changing macro "ENTER_BOOTLOADER" in Project_Settings> Startup_code>Cpu.c to enable ROM bootloader. When "ENTER_BOOTLOADER" is set, Boot ROM code is executed first out of reset. The ROM bootloader takes about 6 seconds to check the active communication port (I^2C, SCI) before the application code is executed.

8. The device runs in normal mode (50 MHz operation frequency) by default, setting macro "STARTUP_FAST_MODE" in Project_Settings>Startup_code>Cpu.c will configure the device to run in fast mode (100 MHz operation frequency).

9. Connect pin2 and pin3 of J11 to enable the external reset from SW1.

GET STARTED

Download installation software and documentation under **"Jump Start Your Design"** at **www.nxp.com/MC56F81000-EVK.**

SUPPORT

Visit **www.nxp.com/support** for a list of phone numbers within your region.

WARRANTY

Visit **www.nxp.com/warranty** for complete warranty information.

www.nxp.com/MC56F81000-EVK