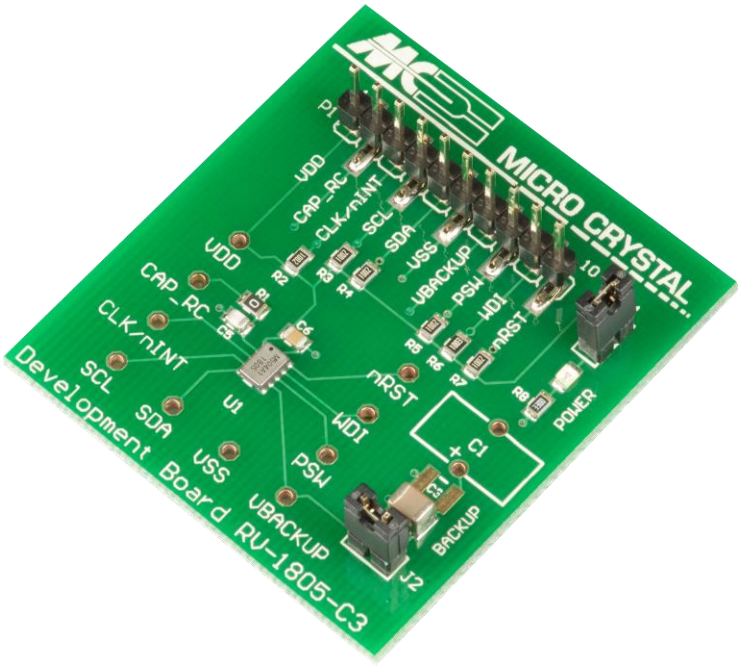
MICRO CRYSTAL SWITZERLAND

RV-1805-C3
Development Board

DEVELOPMENT BOARD



RV-1805-C3
Extreme Low Power RTC Module

DATE:	April 2016	Revision No.: 2

Headquarters: Micro Crystal AG
Muehlestrasse 14
CH-2540 Grenchen
Switzerland

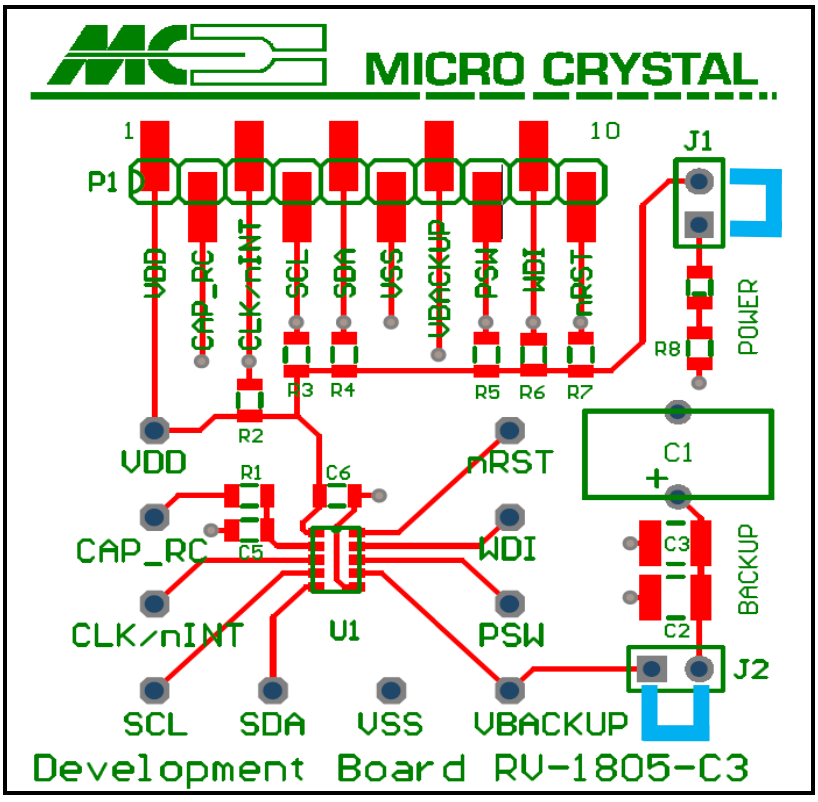
Tel +41 32 655 82 82
Fax +41 32 655 82 83
Internet www.microcrystal.com
Email sales@microcrystal.com

RV-1805-C3

The RV-1805-C3 is soldered onto the Development Board.
Every pin is either accessible at test pins 1 – 10 or at the test vias situated around the device.
The following passive components are already soldered on the Board:

C1	xx	Option for Supercap for backup supply
C2	10 nF	Backup supply buffer cap
C2	xx	Option for double layer cap for backup supply
C5	47pF	Filter cap for auto calibration
C6	10 nF	Decoupling capacitor between V_{SS} and V_{DD}
R1	0 Ω	to limit inrush current for external Supercap
R2	10 kΩ	Pull-up resistor INT to V_{DD}
R3	10 kΩ	Pull-up resistor SCL to V_{DD}
R4	10 kΩ	Pull-up resistor SDA to V_{DD}
R5	10 kΩ	Pull-up resistor PSW to V_{DD}
R6	100 kΩ	Pull-up resistor WDI to V_{DD}
R7	10 kΩ	Pull-up resistor RST to V_{DD}
R8	330 Ω	Current limiting resistor for LED
LED	green	Supply current consumption of the LED has to be considered

DEVELOPMENT BOARD



JUMPER 1

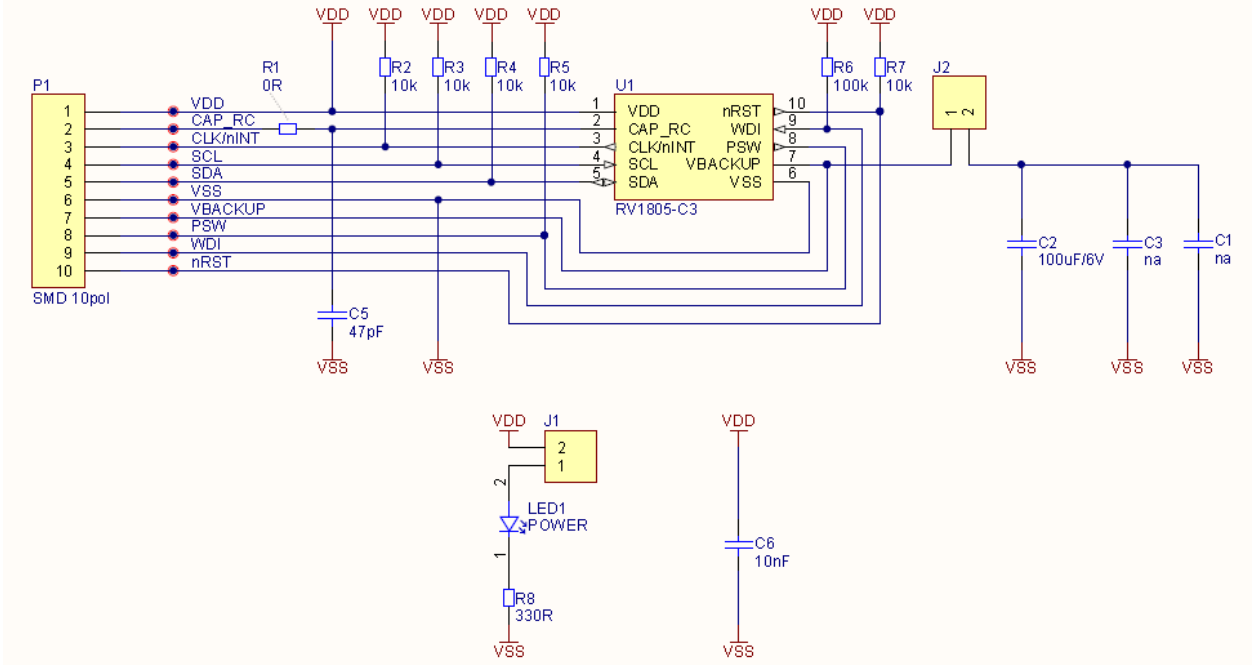
Power for LED

JUMPER 2

Add Supercap

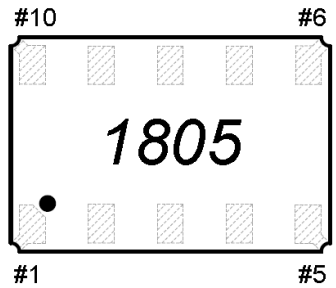
Development Board RV-1805-C3

SCHEMATICS



PINOUT RV-1805-C3

C3 Package: (top view)



# 1	V_{DD}	# 10	RST
# 2	CAP_RC	# 9	WDI
# 3	CLK / $\overline{INT}$	# 8	PSW
# 4	SCL	# 7	V_{BACKUP}
# 5	SDA	# 6	V_{SS}

PIN DESCRIPTION

Symbol	Pin #	Description
V_{DD}	1	Positive supply voltage, primary power connection
Cap_RC	2	Auto calibration filter connection. A 47 pF ceramic capacitor should be placed between this pin and VSS for improved Auto calibration mode timing accuracy.
CLK / $\overline{INT}$	3	Clock output / Interrupt. Primary interrupt output connection. It is an open drain output. An external pull-up resistor must be added to this pin. It should be connected to the host device and is used to indicate when the RTC can be accessed via the I^2C-bus interface
SCL	4	I^2C Serial Clock Line input. A pull-up resistor is required on this pin
SDA	5	I^2C Serial Data Line. A pull-up resistor is required on this pin
V_{SS}	6	Ground connection
V_{BACKUP}	7	Backup supply voltage
PSW	8	Power Switch output. Secondary interrupt output connection. It is an open drain output
WDI	9	Watchdog timer reset Input connection. It may also be used to generate an External interrupt
RST	10	Reset output. It is an open drain output

Datasheet and Application-Manual are available for download under: www.microcrystal.com