

# ■BlueChip PLC Evaluation board Manual

**Dolphin BCP-VoC for Video over Coax.** 

BCP-VC-E01 : Evaluation board (Dolphin VoC)

2016/03/15

MegaChips Corporation Proprietary

#### ■Table of contents

- EVALUATION KIT IMPORTANT NOTICE
- BlueChip PLC Evaluation board contents
- Specifications
- Outline View
- Master unit Detail
- Terminal unit Detail
- AC/DC adapter
- Connection Diagram (for Ether Bridge Test )

### ■EVALUATION KIT IMPORTANT NOTICE

MegaChips Corporation (MCC) provides these evaluation kits (EVKs) under the following AS IS conditions:

The EVKs are intended for use for **ENGINEERING DEVELOPMENT OR EVALUATION PURPOSES ONLY** and are not for commercial use. Therefore, the EVKs are not fault-tolerant and are not designed or manufactured with protective considerations, including but not limited to product safety measures typically found in finished commercial goods. As a prototype, the EVKs do not fall within the scope of the European Union Directive on electromagnetic compatibility. Also be aware that the EVKs may not be regulatory compliant or agency certified (FCC, UL, CE, etc.).

The EVKs have 110/220VAC POWER DIRECTLY CONNECTED TO THEIR CIRCUITS, which can cause PERSONAL INJURY, DEATH OR PHYSICAL DAMAGE. Therefore, caution should be exercised when testing these devices. The user must be a skilled person in the practice and art of high voltage circuitry in order to utilize the circuits in the EVKs. It is highly recommended that the user should have qualifications or any certificate for handling 110/220VAC Power, COMMON SENSE IS ENCOURAGED. The user agree not to use the EVKs in any situation where damage or injury to persons, property or business could occur. Furthermore, the EVKs are NOT FOR RESALE/COMMERCIAL USE AND MUST BE STRICTLY OPERATED IN A WELL-CONTROLLED LABORATORY ENVIRONMENTS.

THE USER ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR PROPER AND SAFE HANDLING OF THE EVKS. FURTHER, THE USER RELEASES MCC FROM ALL CLAIMS ARISING FROM THE HANDING OR USE OF THE EVKS.

This notice contains important safety information as to handling EVKs. For further safety concerns, please contact a MCC application engineer.

# ■BlueChip PLC Evaluation board contents

## 1.Dolphin BCP-VoC Master/Terminal set



Packaging box

:1pcs



② EVALUATION KIT IMPORTANT NOTICE :1pcs

③ BCP-VoC Master unit :1pcs

4 BCP-VoC Terminal unit :1pcs

(5) Connector Plug for DC Connector Input :1pcs

MC 1,5/ 2-ST-3,81(PhoenixContact)

6 AC adapter(DC48V) :1pcs

# ■Specifications

#### 1. Master unit with PoC(Power over Coax.)

Power Supply Input: DC-Jack Input: DC48V

(Note) Recommended AC Adapter: model No. SPU41A-111

DC Connector Input: DC48V~DC55V

PoC drive capability: Max 2 Terminals with PoE class0(15.4W)

Max 4 Terminals with PoE class2(7W)

Max 8 Terminals without PoE

(Note) Hot-swap is not recommended.

### 2. Terminal unit with PoE(Power over Ethernet)

Power Supply Input: PoC via Master unit

• PoE : IEEE802.15.4af (Max15.4W)

(Note) Hot-swap is not recommended.

### ■ Outline View





Label : BCP-VoC(Master)

MAC ADDRESS

M/T LED: Green ON





Label: BCP-VoC(Terminal)

MAC ADDRESS

M/T LED: Green OFF



Master unit



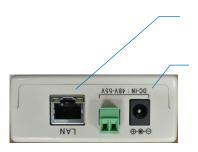
COAXIAL

Terminal unit

2016/03/09 Confidential, Preliminary MegaChips Corporation

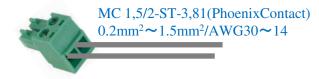
MegaChips 6

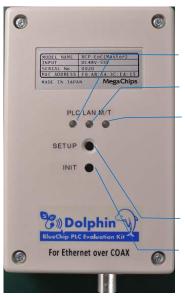
#### ■Master unit Detail



**LAN Port** 

DC Connector and DC Jack





COAXIAL

PLC LED : PLC Link status

LAN LED : LAN status

M/T LED : Master mode : Green ON

Terminal mode: Green OFF

SETUP button : Exchanges keys

INIT button: Resets to factory default (push at least 1 second)

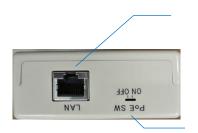




Case Size  $32mm(H) \times 80mm(W) \times 125mm(D)$ 

**MegaChips** 

#### ■Terminal unit Detail



LAN Port with **PoE**(**Power Over Ethernet**)

PoE Switch >PoE enable Switch [OFF ⇔ ON]



PLC LED : PLC Link status

LAN LED: LAN status

M/T LED : Master mode : Green ON

Terminal mode: Green OFF

SETUP button : Exchanges keys

INIT button: Resets to factory default (push at least 1 second)



**BNC Connector** 



Case Size  $32mm(H) \times 80mm(W) \times 125mm(D)$ 

**MegaChips** 

8

# ■AC/DC adapter



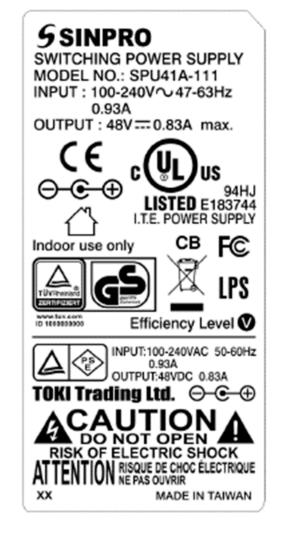
Maker : SINPRO

ModelNo: SPU41A-111

INPUT: 100-240V(47Hz-63Hz)/0.93A

OUTPUT: DC48V/0.83A

#### [Label]



# ■Connection Diagram (Ether Bridge Test)

- (1)Connect Ethernet Devices
- (2)Start Test

