



## ■ 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



① 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

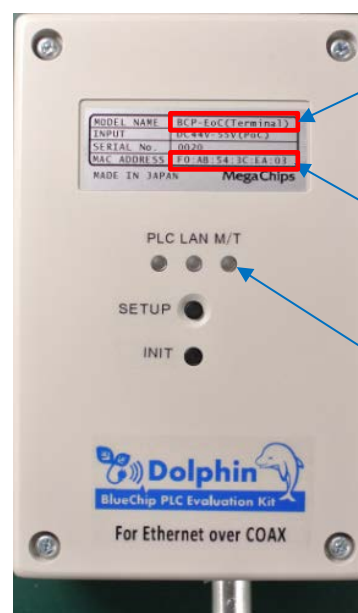


Master unit

Label :  
BCP-VoC(Master)

MAC ADDRESS

M/T LED : Green ON



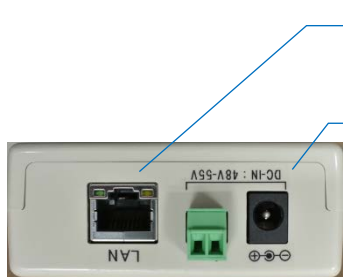
Terminal unit

Label :  
BCP-VoC(Terminal)

MAC ADDRESS

M/T LED : Green OFF

# Master unit Detail



LAN Port

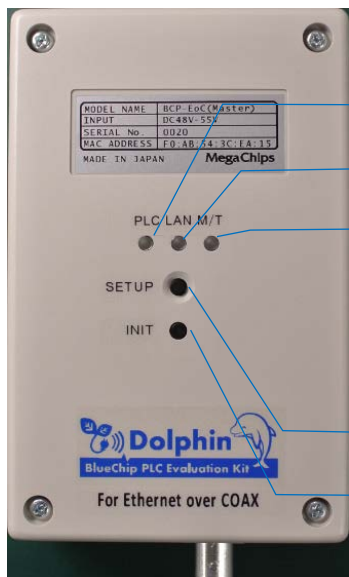
DC Connector and DC Jack



MC 1,5/2-ST-3,81(PhoenixContact)  
0.2mm<sup>2</sup>~1.5mm<sup>2</sup>/AWG30~14



Case Size  
32mm(H) × 80mm(W) × 125mm(D)



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 1second)



BNC Connector with PoC(Power Over Coax )



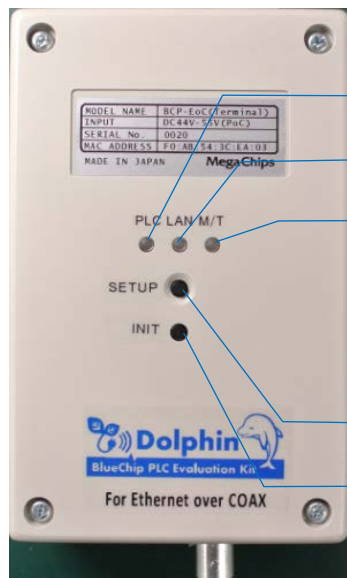
# Terminal unit Detail



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 1second)



BNC Connector



Case Size

32mm(H) × 80mm(W) × 125mm(D)



# ■ AC/DC adapter



Maker : SINPRO  
 ModelNo : SPU41A-111  
 INPUT : 100-240V(47Hz-63Hz)/0.93A  
 OUTPUT : DC48V/0.83A

## 【Label】

**SINPRO**  
 SWITCHING POWER SUPPLY  
 MODEL NO.: SPU41A-111  
 INPUT : 100-240V~47-63Hz  
 0.93A  
 OUTPUT : 48V=0.83A max.

CE    C UL US  
 94HJ  
 LISTED E183744  
 I.T.E. POWER SUPPLY

Indoor use only    CB    FC  
 LPS

TÜV Rheinland CERTIFIED    GS  
 www.sinpro.com ID 161809900    Efficiency Level V

INPUT:100-240VAC 50-60Hz  
 0.93A  
 OUTPUT:48VDC 0.83A

**TOKI Trading Ltd.**

**CAUTION**  
 DO NOT OPEN  
 RISK OF ELECTRIC SHOCK  
**ATTENTION** RISQUE DE CHOC ÉLECTRIQUE  
 NE PAS OUVRIR

XX                      MADE IN TAIWAN

# ■ Connection Diagram (Ether Bridge Test)

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

