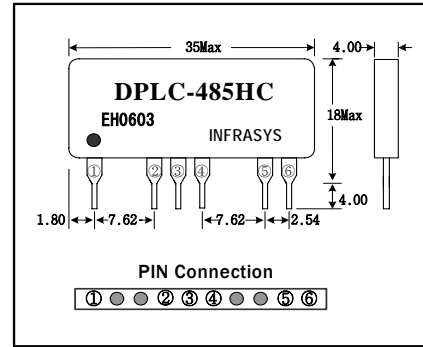


High speed DC power line communication module DPLC-485HC

GENERAL DESCRIPTION

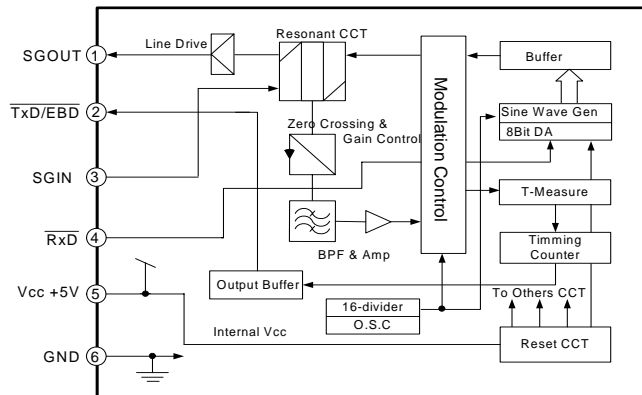
DPLC-485HA DC Power Line Module은 고속 중거리 통신 Network를 별도의 통신선 없이 DC 전원 에 간단히 구현 되도록 설계된 SIP Type Hybrid Module이다. 응용분야로는 보안설비, 중계기간제어통신, 원격자말티드롭 제어 시스템, 방송장비제어 등 Local Network이 요구되는 어떠한 분야나 저렴한 비용으로 양질의 장거리 통신 설계를 간단히 할 수 있다.



FEATURES

- 8Bit D/A Converter 정현파 생성기 내장
- 멀티드롭통신 가능 (Nodes 수는 통신환경 및 거리에 차이가 있을수 있음)
- DC Power Line으로 Audio전송 + DATA 통신가능 (Audio Signal은 콘덴서 커플링방식등 가능)
- 통신 INTERFACE : I/O 제어신호 (TTL Level), UART, 비동기 SIO등
- 통신전송속도 : 19,200bps (Max : 38,400bps)
- 최대통신거리 : 1.2Km (단, 통신환경 및 LINE간 상태에 따라 차이가 있음)

PIN ASSIGNMENT AND BLOCK DIAGRAM



PIN DESCRIPTION

Pin No	Pin Name	In-Out	Functions
1	SGOUT	Output	Carrier signal output to DC power line
2	TxD/EBD	Output	Receive data and echo back data output to CPU or other devices
3	SGIN	Input	Carrier signal input from DC power line
4	RxD	Input	Input data from CPU or other devices (TTL Level Input)
5	VCC	-	+5V (4.5V~5.5V)
6	GND	-	Signal Ground

Absolute Maximum Ratings

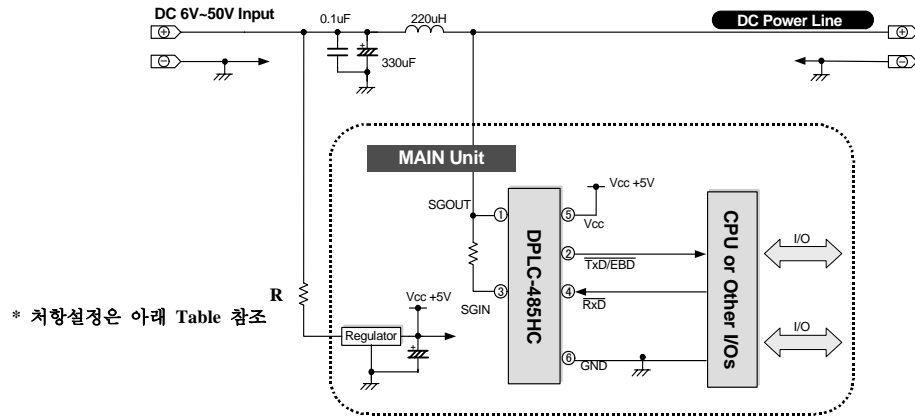
Parameter	Symbol	Rating	Unit
Supply Voltage	Vcc	-0.3 to 6.0	V
Input Voltage		-0.3 to Vcc+0.3	V
Operating Temperature		-20 to 80	°C
Storage Temperature		-55 to 125	°C

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Operating Voltage	Vcc		4.5	5.0	5.5	V
Output Carrier Frequency	Cy			450		KHz
Current consumption	Icc			80		mA
Output Voltage	High	Voh	Ioh = -1.0mA	Vcc-1.0	-	Vcc
Output Voltage	Low	Vol	Iol = +1.0mA	Vgnd	-	Vgnd+0.6

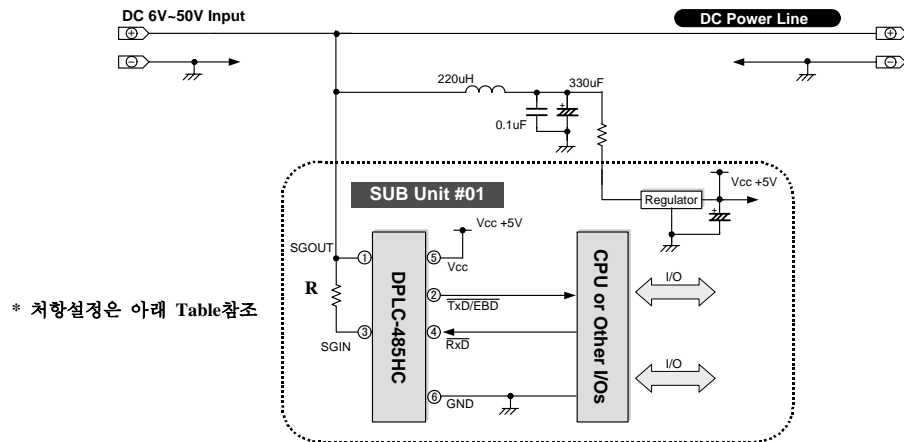
Example of Interface MCU circuit

(1) Main unit Application



* 저항설정은 아래 Table 참조

(2) SUB Unit Application



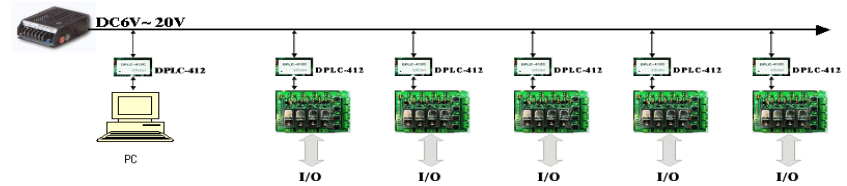
* 저항설정은 아래 Table참조

Setting table of resister 'R' value

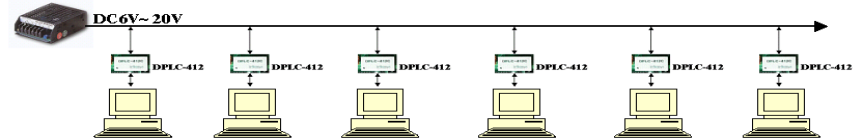
CABLE DISTANCE	UNIT	VALUE	REMARKS
10m Less than	OHM	200	
200m Less than	OHM	100	
500m Less than	OHM	50	
500m Or more	OHM	22	

Example Of Data Network Application

PC-I/O Unit System Control Network



PC-PC System Control Network



Rev:061018