

CCU100

PAGE/PARTY & BRIDGE



DS-052 Issue 04

Thank you for your interest in Zitel - we are a UK based manufacturer of PAGA and Intercom products. Our systems are mainly designed for use in the Hazardous Oil, Gas and Petrochemical industries.

Consequently our products are very robust and designed to comply with international standards.

Please do not hesitate to contact us for further information on our products we look forward to working with you on a project soon...

ZITTEL CCU100 HANDSET DECODER & BRIDGE

Page/party capability on one field cable pair

Up to eight subscribers on one radial loop in-out cable

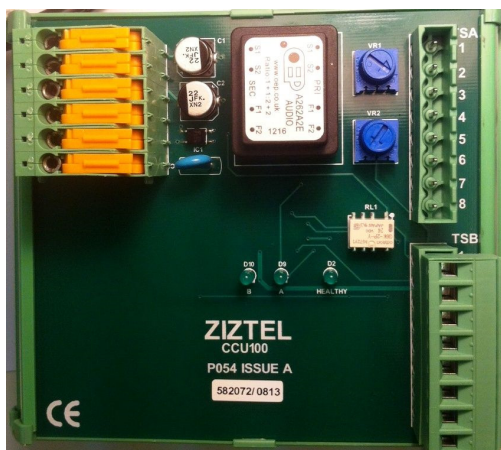
Open channel non-private party line full duplex communications for up to four subscriber handsets

A+B or N+1 PAGA interface capability for mission critical applications

The Zitel CCU100 is a compact DIN rail mount module designed to support paging interface from conventional analogue (POTS) handsets to a Zitel ZEST PAGA broadcast system.

The CU100 unit incorporates a bridge which supplies two isolated outputs enabling use in high security mission critical A+B or N+1 PAGA architectures. Where a redundant architecture is specified, dual power supplies ensure continued handset service in the event of a catastrophic failure of either A or B critical paths.

Up to eight handsets can be phantom powered from the CCU100 host and operation is established over a single-pair cable which can be arranged to loop in-out each handset station.



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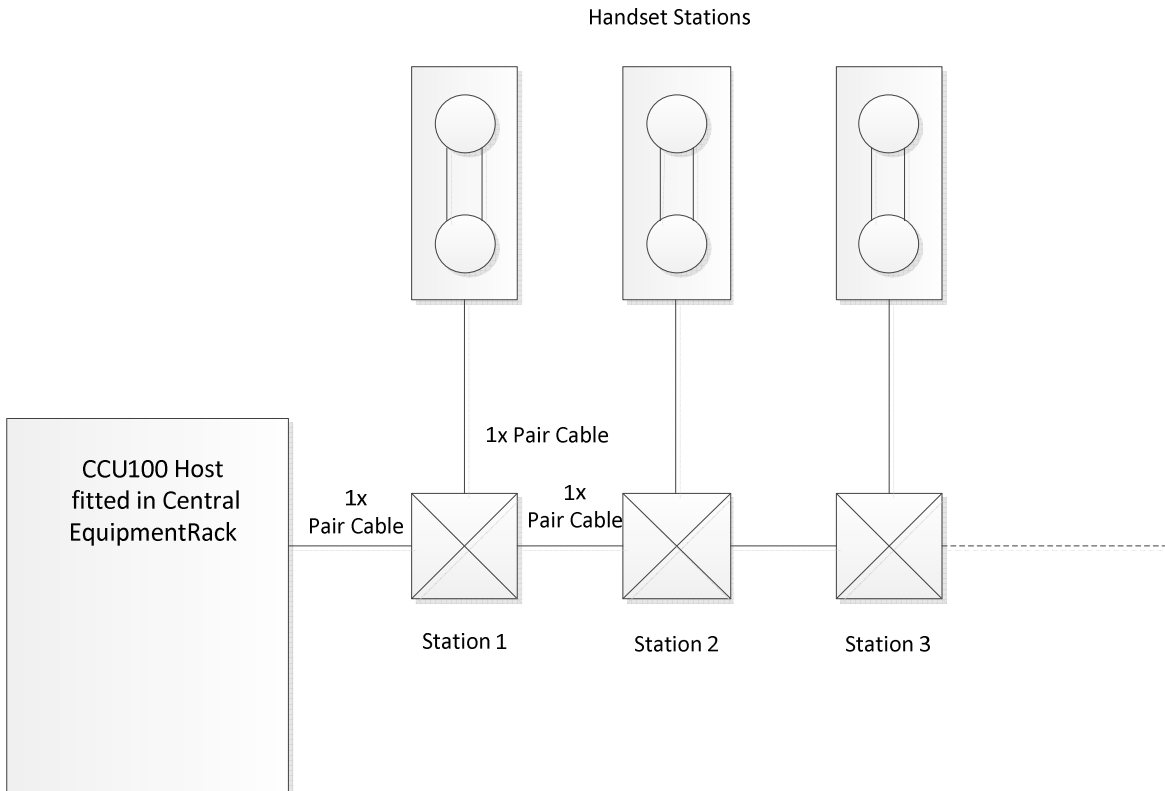


Photo shows ZX100 motherboard fitted with SLIC A, SLIC A subscriber line interface provides communications gateway for CCU100 to the target paging loudspeakers

The CCU operates in conjunction with a ZX100 SLIC 'A' which is configured to decode key presses initiated at a subscriber station. Typical handset key assignment is as follows:-

- ① Talk to Zone 1
- ② Talk to Zone 2
- ③ Talk to Zone 3
- ④ Talk to Zone 4
- ⑤ Talk to Zone 5
- ⑥ Talk to Zone 6
- Ⓜ Emergency Speech

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Other key combinations can be arranged to initiate alarm tones or other project specific cause & effect as required.

Operation for paging only is as follows:-

- User lifts handset
- User depresses & releases button ①
- Handset now routed to Zone 1 paging loudspeakers
- Speech sent to Zone 1 loudspeakers
- Handset returned to cradle
- Speech path clear down, system quiescent

Operation for page/party is as follows:-

- User lifts handset
- User depresses & releases button ①
- Speech issued to Zone 1 loudspeakers to page for required person
- User depresses * button to release the handset from the paging channel
- Second user lifts handset and now both subscribers are connected together on a non-private party line basis. Note that any station can 'join' an established paging channel by picking up his handset. To ensure party line communications is not broadcast via the paging speakers the paging channel must be closed down, this can be initiated by any handset station.
- Handsets are returned to cradle
- System quiescent

Note: Up to a maximum of four subscribers can communicate over the party line at any one time.

Note: Button identifiers are typical and can change from project to project according to configuration residing in ZX100 management.

Implementation:

Connection from CCU100 to the host ZX100 is by a single RJ45 patch cord, loop in-out capability is fitted on CCU100 allowing:

- Further CCU100 to be fitted up to a maximum of three per SLIC A, or
- An LTD004 termination device can utilise the remaining spare channels on the SLIC A interface [maximum of three channels on a SLIC A].

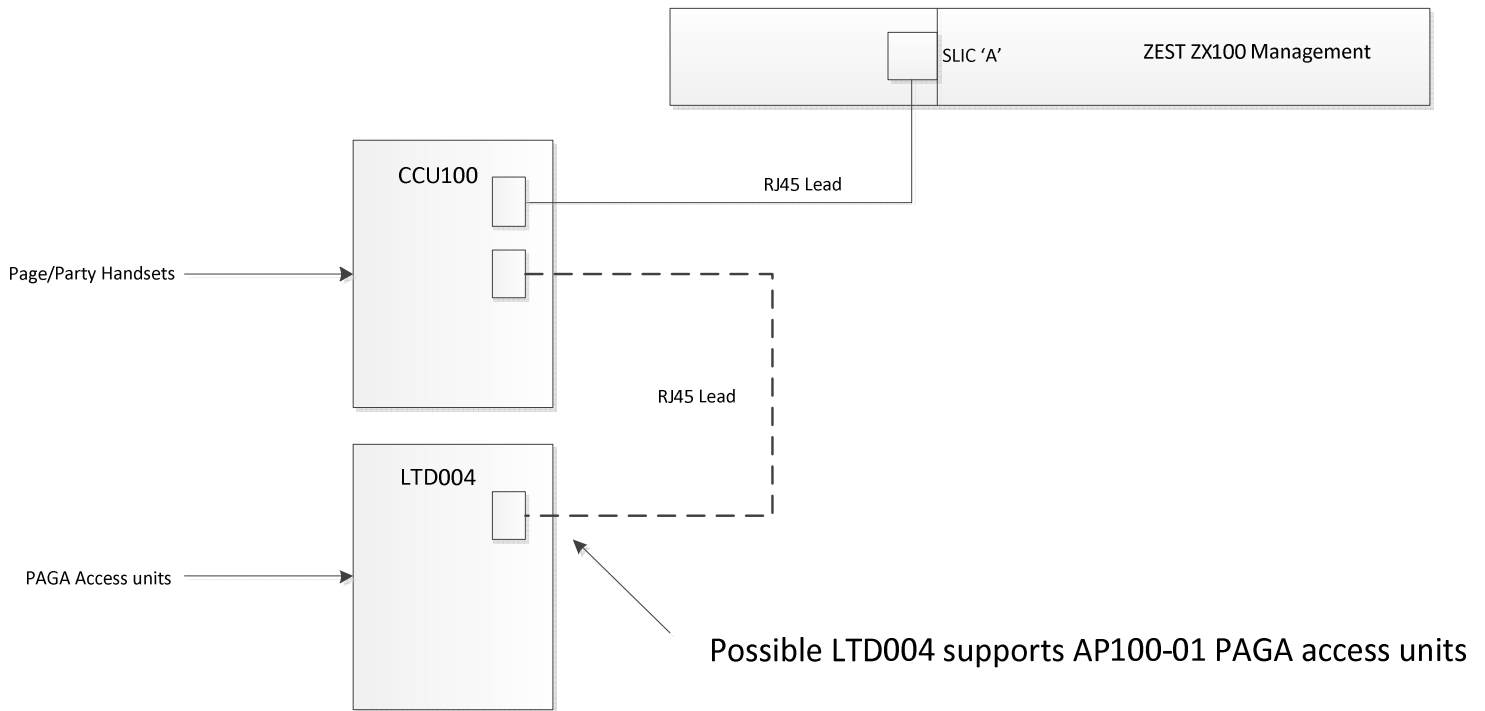
Note: A single CCU100 unit engages one channel of the SLIC A. An LTD004 allows termination of AP100-01 master PAGA access panels.

No separate power supply is required on CCU100, DC supply required for the handsets is sourced from the SLIC A interface.

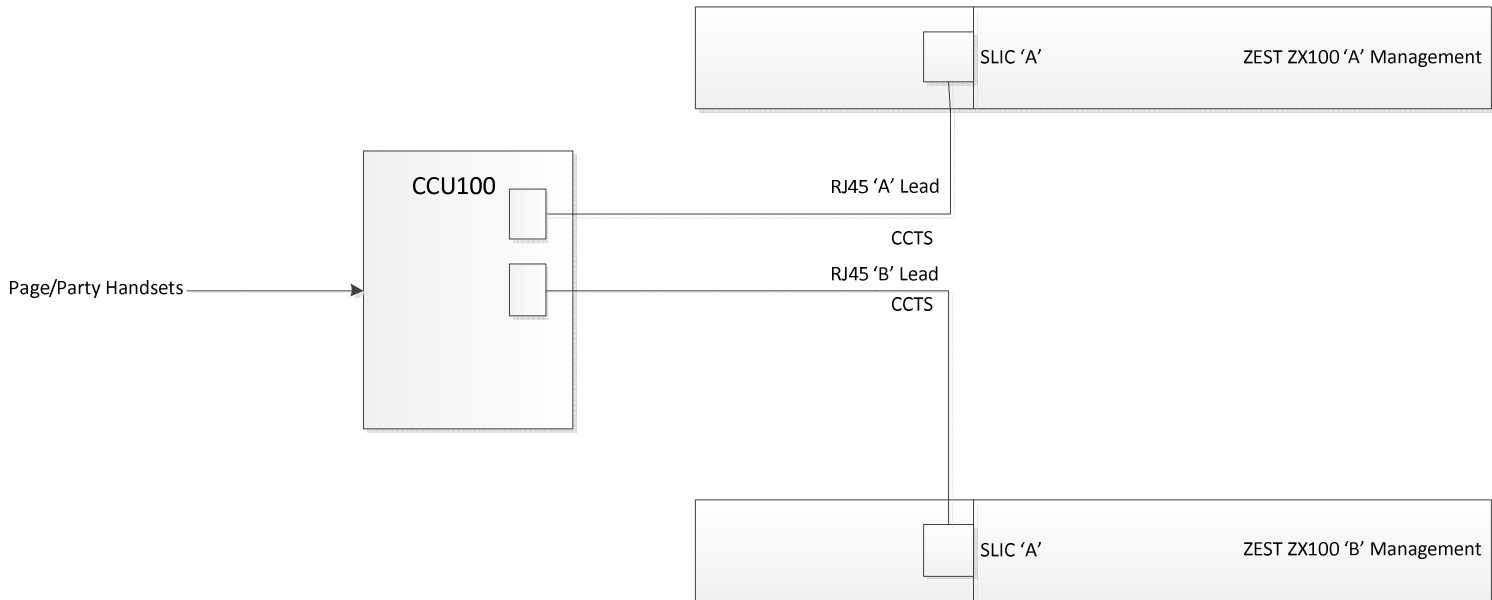
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For higher security the CCU100 can be connected directly to dual ZX100 via an on board bridge.



Where the handsets are located in the vicinity of active paging/PAGA loudspeakers, an acoustic feedback destroyer can be fitted to alleviate the detrimental effects of “howl around.”

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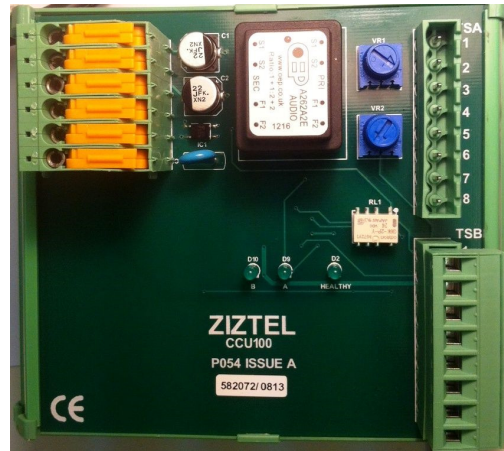


Photo shows a typical explosion proof telephone subscriber handset and a Zitel CCU100 - note the connectors TSA and TSB extend handset connections to the A and B host PAGA subsystems, test disconnect terminals allow connections to the handsets which maybe radially wired or loop wired

Technical Specification	
Supply	Phantom powered +48Vdc
Consumption	100mA
Bandwidth	150Hz – 10kHz
Signalling	DTMF
Location	Safe area internal
Temperature Range	-20 °C to + 70 °C
Weight	0.25kg
Dimensions	120 x 126 x 50 mm

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