

Introduction

The general purpose input output port has many uses including the following operating options, all programmable via ICORE:

A general purpose input which may be programmed to:

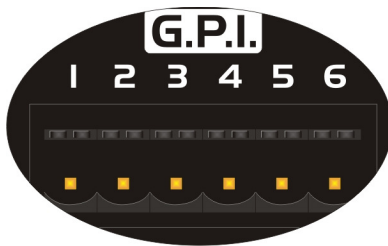
- ✓ Control the amplifier's standby/active state (logic level)
- ✓ Mute both channels (logic level)
- ✓ Bypass the power on delay (logic level)
- ✓ Variable VCA level control of both channels (analogue voltage)
- ✓ Bypass the VCA sections (logic level)

A general purpose output which may be programmed to:

- ✓ Indicate A/P state
- ✓ Indicate excessive limiting on either channel (15 minutes continuous)
- ✓ Indicate a load range error
- ✓ Indicate your birthday
- ✓ Indicate an excessively high temperature state (before shutdown)
- ✓ Logical combinations of the above

An isolated changeover relay is also brought out to this port. This may be programmed to:

- ✓ Follow the GPO output state
- ✓ Follow the opposite of the GPO output state (invert its logic)
- ✓ Do nothing (disabled)



The connections on this port also include a 3V3 output for use with all logic or analogue level inputs. For ground (0V) connections, this must be derived from the RS485 "Phoenix" connector.

The pin-out of this port is:-

- Pin1: Isolated relay normally open contact (ON state)
- Pin2: Isolated relay common contact
- Pin3: Isolated relay normally closed contact (OFF state)
- Pin4: 3V3 Output
- Pin5: GP Input (maximum input voltage 24V, useable range 0V – 3V3)
- Pin6: GP Output (OFF state = 0V, ON State = 3V3)

VCA control of amplifier levels

Each amplifier is equipped with a digital potentiometer which can be controlled either remotely using ICORE, or locally via the GPIO port. Note that the local control will take precedence over any remote settings so it's advisable not to enable local control at the same time as trying to make remote adjustments. Both channels are adjusted together under local control and no relative offset is possible.

In ICORE, select the amplifier and open its properties window (View ⇒ Device Properties)

Set the GPIO Config "Input" property to "VCA Mode".

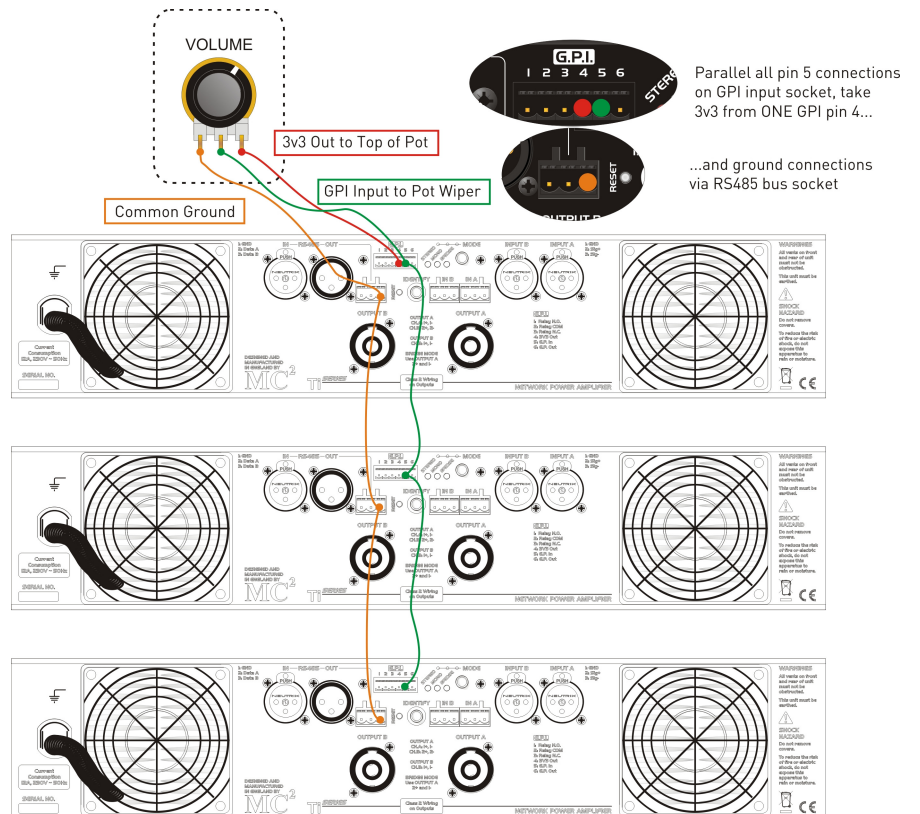


An analogue control voltage from 0v to 3v3 on the GPI input line will now adjust the gain of both amplifier channels, with 3v3 being 0dB. Grounding this input will effectively mute both channels.*

Individual amplifier channels can also be disabled from local VCA control under the GPIO Config properties.

As this is being used as input control system, all amplifiers that are to be controlled in this manner may have their control inputs wired in parallel to the control voltage – as shown below using a basic "Remote" potentiometer.

If required, the front panel pots can be disabled – this setting can be monitored through ICORE, but not adjusted. Please see the operator's manual for details of how to disable these controls.



*Muting is specified as -90dB gain reduction relative to 0dB and this is only possible using the mute facility – the amount of gain reduction possible using the digital VCA control is -60dB.