



T-Gen2 OWS



## T-Gen2 60W/120W Grade 3 Emergency Warning System Extended Sales Presentation

Rev 2  
21 Nov 18

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# AS 4428.16:2015 Product Grades

## Grade 3



- Single Evacuation Zone
- Building height 8 floors max
- Multiple protected outputs
- May be controlled and powered by fire panel
- Optional emergency PA and zone paging
- Typically small buildings where only a signal evacuation zone is required.

## Grade 2



- Multiple Evacuation Zones
- Building height 8 floors max
- Protected outputs
- Phased evacuation
- May be controlled and powered by fire panel
- Emergency PA
- Optional zone paging
- Typically medium sized buildings where more than 1 evacuation zone is required.

## Grade 1



- Multiple Evacuation Zones
- Building height no restriction
- Phased evacuation
- Individual zone controls
- Individual tones / messages / PA /BG music per zone
- Zone paging
- Optional fire warden phone system
- Typically larger buildings with more than 8 floors or large areas such as a shopping centre.

Similar to T-GEN with new requirements

Entirely new

Similar to QE90 with new requirements

# T-Gen2

- The VIGILANT T-Gen2 is an Emergency Warning System (EWS) that generates emergency warning tones and messages for occupant warning, where a full EWCIE to AS 1670.4 is not required.
- The T-Gen2 comprises of 60W or 120w amplifier cards, 100V speaker line, digitized speech messages plus optional grade 3 user interface.
- The T-Gen2 is typically installed in, powered and activated by a fire panel such as the VIGILANT MX1, SIMPLEX 4100ESi or 3rd party panels.



Grade 3 User interface



MX1 with T-gen2

# Main Features of both 60W & 120W T-Gen2

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- Complies with AS 4428.16 and NZS 4512:2010  
ActivFire Listed afp-3315  
FPANZ Listed VF/429 VF/430
- Pre-recorded Alert and Evacuate messages
- Digital storage of tones / messages (up to 2 minutes)
- Optional additional storage of non-emergency messages on micro SD card
- 1 x Audio Output (headphones / external amp)
- Power Save Mode on Mains Fail – disables background audio
- Link selectable earth fault monitoring
- Direct microphone connection for optional PA Mic

## Main Features of both 60W & 120W T-Gen2 continued

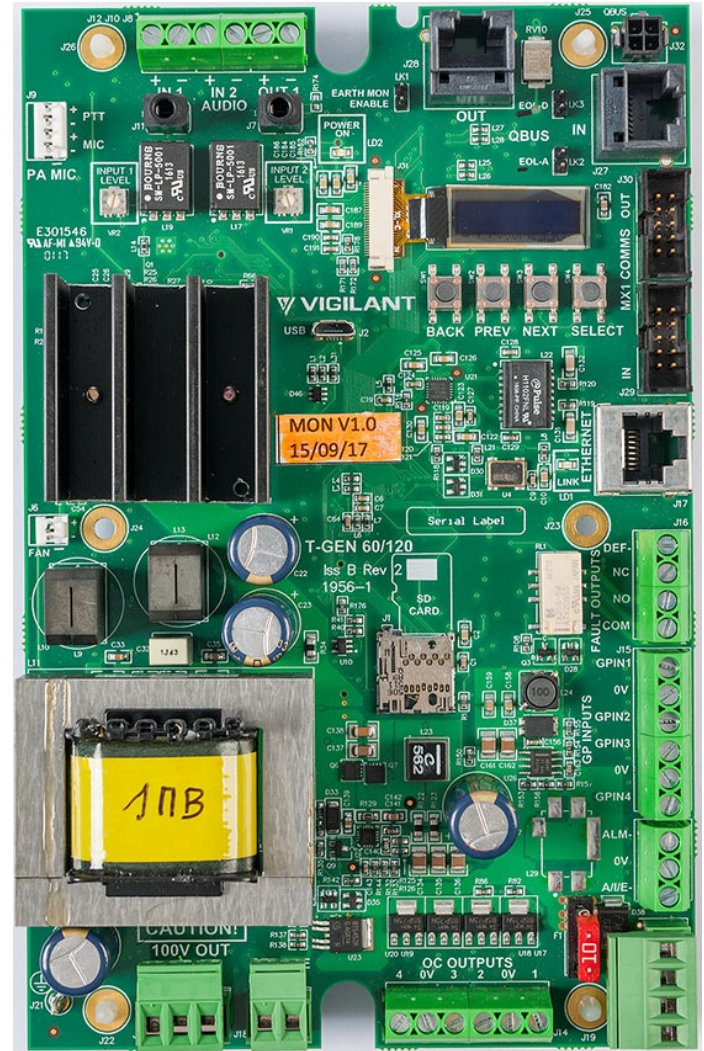
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- Supports up to 4 paging areas with 100V Switching Modules
- Supports optional Grade 3 User Interface & supervised Microphone
- 1kHz sinewave Test Tone with adjustable volume level
- Programmable priority between inputs and message playing
- Programmable sequencing of messages / tones for signalling
- Adjustable volume for each message and input
- On-site recording of messages

# FP1115 T-Gen 60

## Features:

- Size : 125 x 195 x 55mm, 0.65kg
- Same footprint and mounting holes as a T-Gen50 for easy upgrades
- 2 operating modes:
  - Constant 60 watt power output over full supply voltage range
  - T-Gen 50 Mode where power reduces with voltage supply
- 3.0A current draw at 60W output



# FP1116 T-Gen 120

Features specific to the 120W version are:

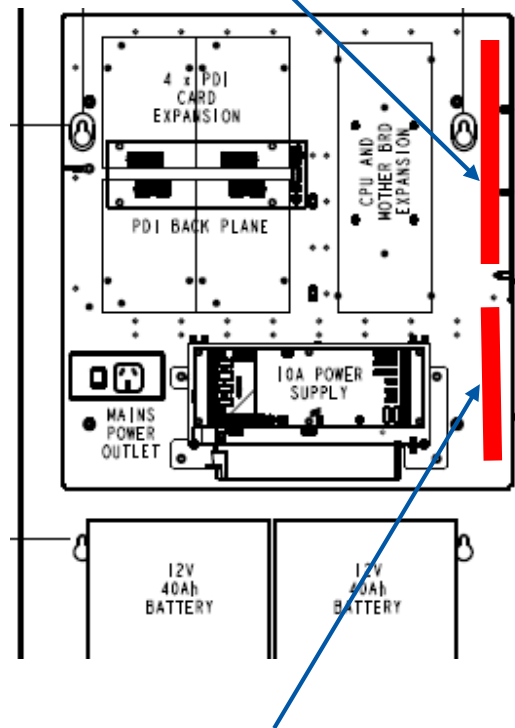
- Size : 125 x 195 x 110mm, 1.5kg
- Same footprint as a T-Gen50 but deeper
- Mounts on 3 x MX Loop Card bracket footprint
- 2 operating modes
  - Constant 120 watt power output over supply voltage range
  - T-Gen 50 Mode where power reduces with voltage supply
- 6.0A current draw at 120W output



# T-Gen2 Mounting Options in 15U 4100ESi

- The 15U Compact 4100ESi Panel (FP1045) supports a single T-Gen 60
- One FP1117 100V Switching Module or FP1118 100V Splitter Module
- The 8U window or solid door expansion cabinets accommodate additional T-Gen60, T-gen120 or Switching / Splitter modules.

4100ESi 15U T-Gen 60 mounting position

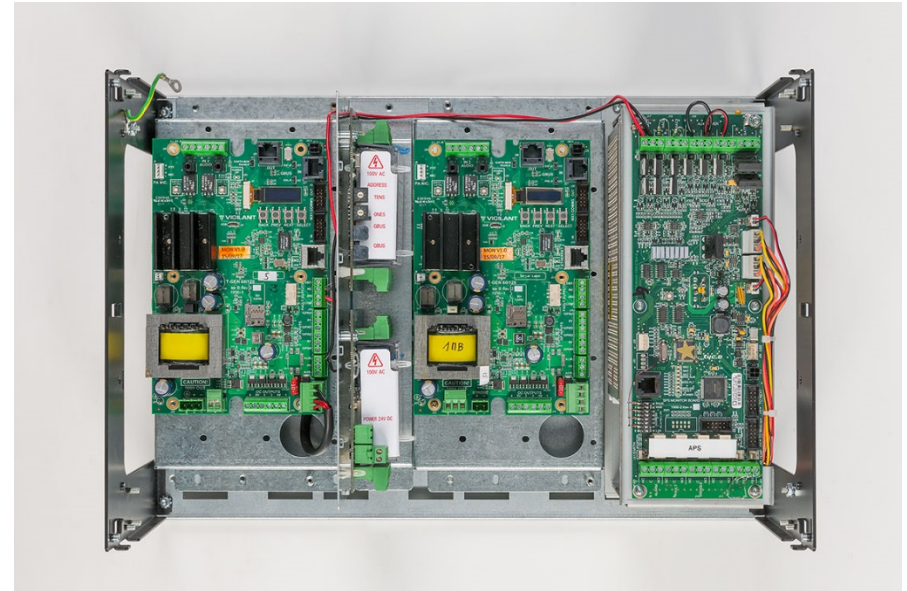


4100ESi 15U 100V Switching or Splitter Module mounting position

# Mounting Options in Larger 4100ESi Panels

- The 28U/40U 4100ESi PDI bays support.
  - Two FP1119 PDI T-Gen2 mounting brackets with a T-Gen 60 or T-Gen 120 on each.
  - 2 x 100V Switching or Splitter Modules.
  - One APS or 14A Power Supply to provide power.
- Other combinations are possible.

4100ESi PDI bay with T-Gen2 parts fitted and APS PSU



# Mounting Options in 15U and 8U MX1

## The 15U *MX1* supports:

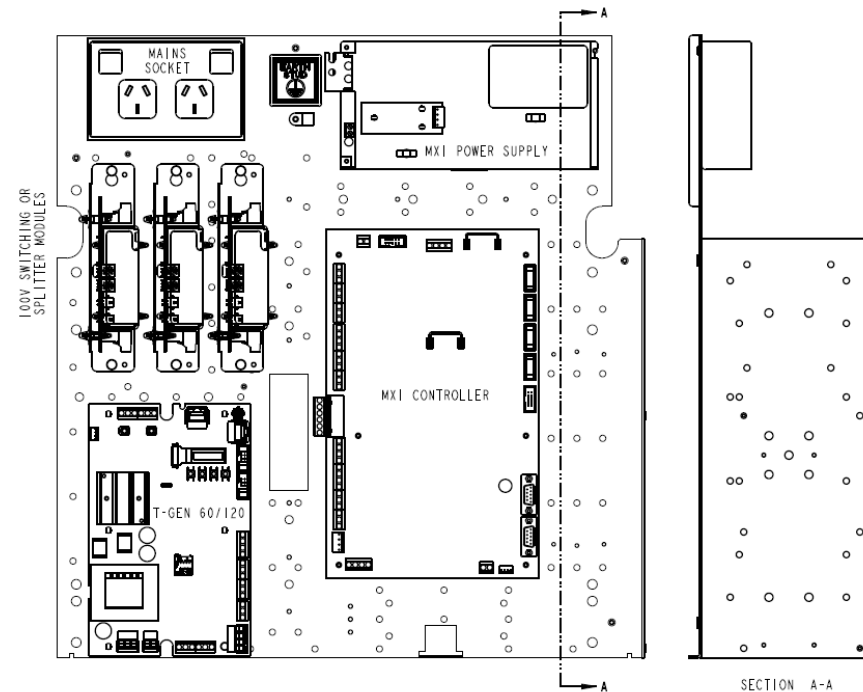
- T-Gen 60 on the gearplate LHS or RHS or T-Gen 120 on the LHS
- FP1121 3U User Interface with T-Gen 60 or FP1122 3U User Interface
- 100V Switching/Splitter Modules in the MX Loop Card positions.

## 8U *MX1* panel supports

- Single T-Gen 60 or T-Gen 120

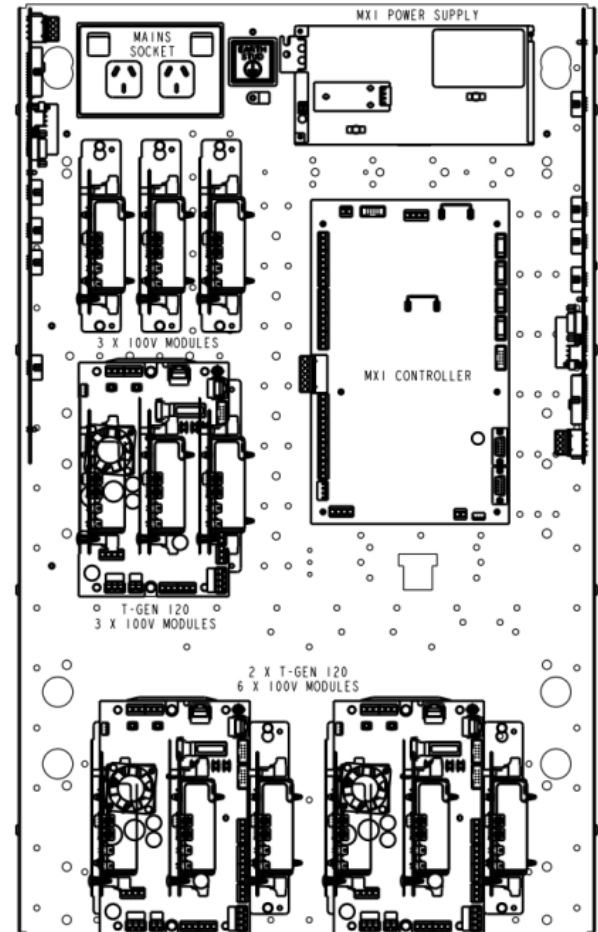
## Empty 8U cabinet & *MX1* Gearplate

- T-Gen 60, T-Gen120 and 100V Splitter/Switching Modules,



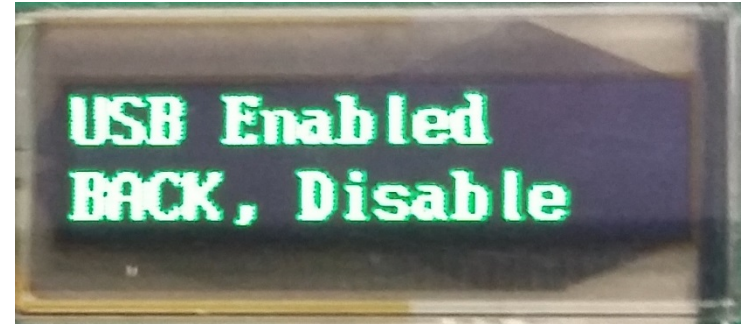
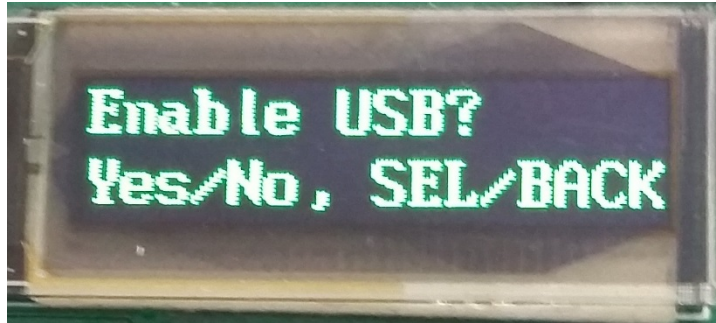
# Mounting Options in BTO MX1 Cabinets

- The BTO *MX1* cabinets (28U/40U) can fit up to 3 x T-Gen 60 or T-Gen 120 units
- A number of 100V Switching or Splitter Modules
- The FP1121 3U Door complete with a T-Gen 60, or the FP1122 3U User Interface
- In BTO panels multiple 14A PSUs can be fitted to power T-Gens.



# T-Gen2 OLED

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- The T-gen2 on board O-LED Display makes fault diagnostics easy
- Simple to use default configurations can be selected for fast set up

# Grade 3 User Interface



- 19 Inch Rack 3U size Grade 3 User Interface complies with AS 4428.16, ActivFire Listed afp-3315, FPANZ Listed VF/428.
- Available in 3 options
  - Grade 3 Door fitted with T-Gen 60 amplifier – for Vigilant panels
  - Grade 3 User Interface doors only which wire to T-Gen 60 or T-Gen120 amplifiers. Available in grey for Vigilant and black for Simplex panels
- Can be fitted to 3<sup>rd</sup> party cabinets that use 19inch rack mounting

# Grade 3 User Interface Features

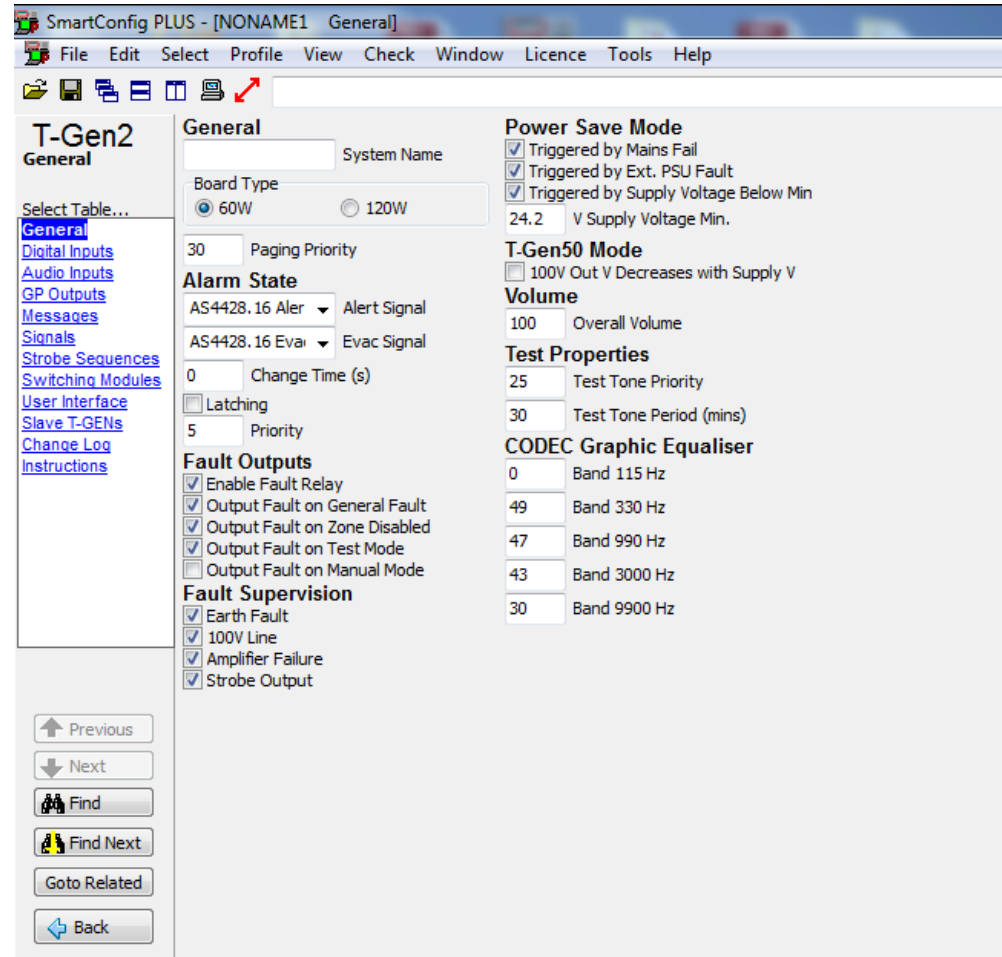
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- Alert, Evacuate, Speech and Disable controls and indications for a single evacuation zone.
- 4 Area paging buttons
- Auto/Manual controls
- 2 programmable buttons for playing messages
- Test Mode to observe operation with no sounds/strobes activated
- Alarm simulation in Test Mode
- Silence Warning – one button press to silence operation
- Silence buzzer
- LED test
- Fault indicators
- Microphone for Emergency Speech or Area Paging functions
- Talk indicator for showing when microphone

# SmartConfig V2.7.0.0

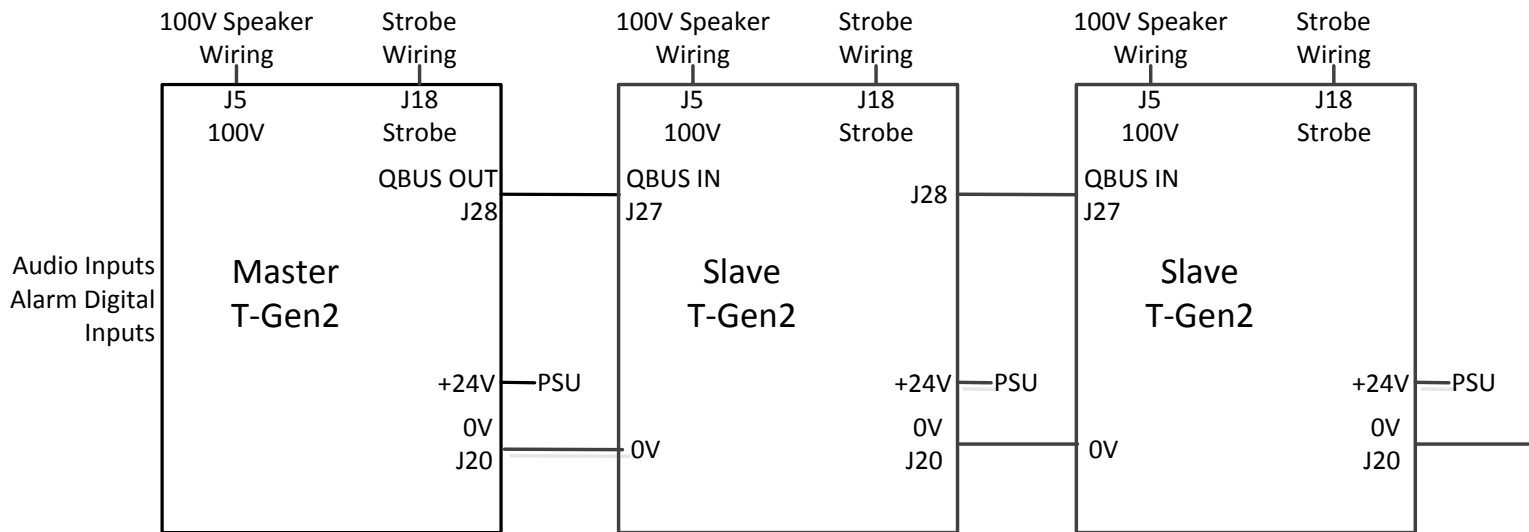
SmartConfig can also be used to configure the T-Gen2

- Built-in Help menu (F1 key) and Instructions page
- Data Transfer is via a Micro USB cable
- Configurations can be written to or read from the T-Gen2



# T-Gen2 Slave Connection

A Master T-Gen2 can be connected to up to 9 Slave T-Gen2 amplifiers (60W or 120W) to provide additional power output. (Grade 3 requires all to operate in unison as 1 zone)

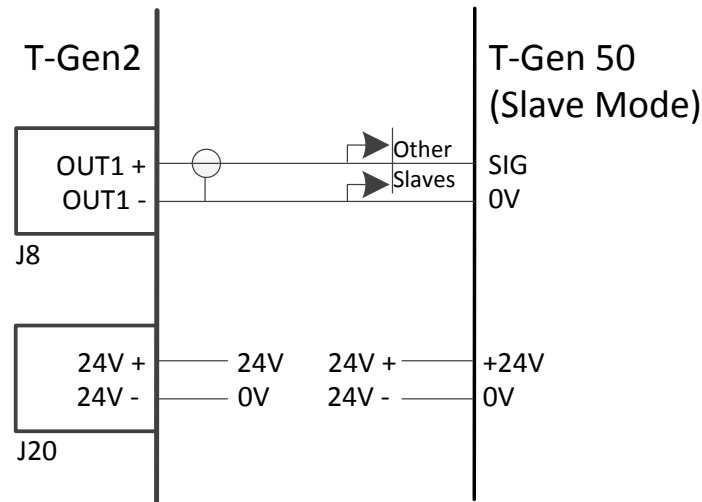




# T-Gen2 Master to T-Gen 50 Slave Connection

A Master T-Gen2 can be connected to existing T-Gen 50 Slaves. This could be useful if the extra features of the T-Gen2 are required, such as extra messages and tones.

Note: The T-Gen2 cannot be used as a Slave to a T-Gen 50 Master  
The T-Gen2 should be configured to run in T-Gen 50 Mode



# 100V Splitter Module

VIGILANT T-Gen2



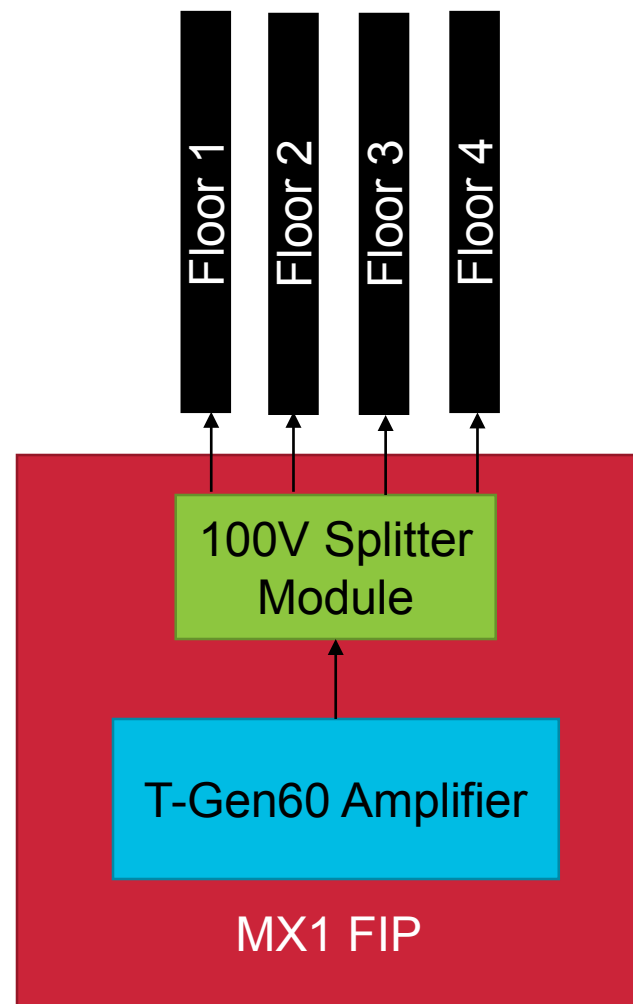
# 100V Splitter Module

- Splits a 100V speaker output into four 100V speaker circuits, each with its own supervision for open or short circuit faults
- Each output is automatically isolated on short circuit, providing an ideal solution for speaker circuit independence between floors.
- Suitable to use with T-Gen60, T-Gen120, T-GEN 50, QE90 and most other 100V amplifiers.
- Up to 100W per output to 120W combined on all 4.



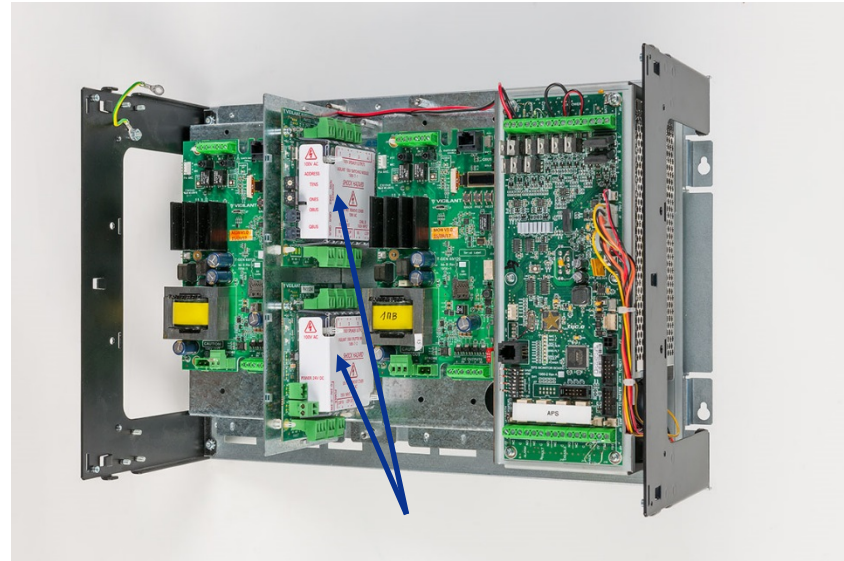
# 100V Splitter Module Features

- 4 x 100V Speaker outputs with individual open/short circuit supervision
- Capable of single (56k EOL) or dual 100k EOL branch wiring on each output.
- Automatic disconnection of shorted outputs
- Daisy-chain modules together for multiple outputs
- Fault signaled via 100V input line to T-Gen or QE90, on board LEDs and independent fault relay.
- Complies with AS 4428.16  
ActivFire Listed afp-3315  
FPANZ Listed VF/427



# 100V Splitter Module Mounting Options

- 100V Splitter Module includes all cabling to wire & hardware to mount in an MX1 fire panel or T-Gen2 8U/18U BOWS
- Can be fitted to Simplex 28U/40U 4100ES / ESi panels using an FP1120 module bracket
- Usable in 3<sup>rd</sup> party panels or with 3<sup>rd</sup> party amplifiers



FP1120 with 2 x Splitters mounted in Simplex 4100ES PDI bay

# 100V Switching Module

VIGILANT T-Gen2



# 100V Switching Module

- Splits the T-Gen2's 100V speaker output into four 100V speaker circuits, each with its own supervision for an open or short circuit fault
- Each output can be disconnected from the 100V feed, allowing the T-Gen2 to control which outputs receive the audio signal, ideal for area paging
- Each output is automatically isolated on short circuit providing an ideal solution for speaker independence between floors

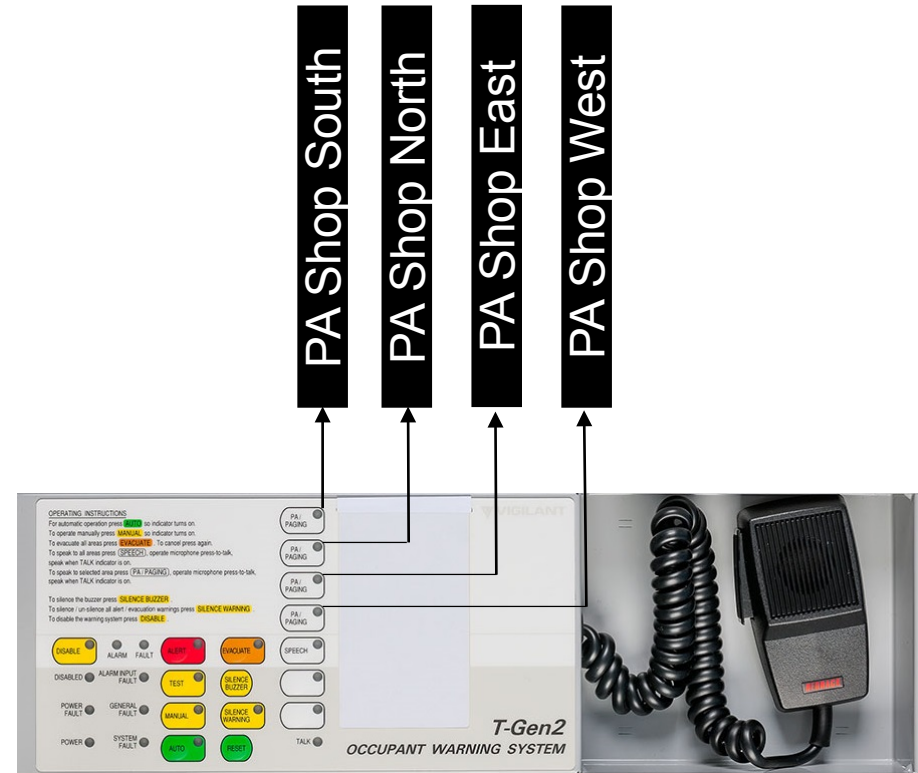


FP1117 Switching Module



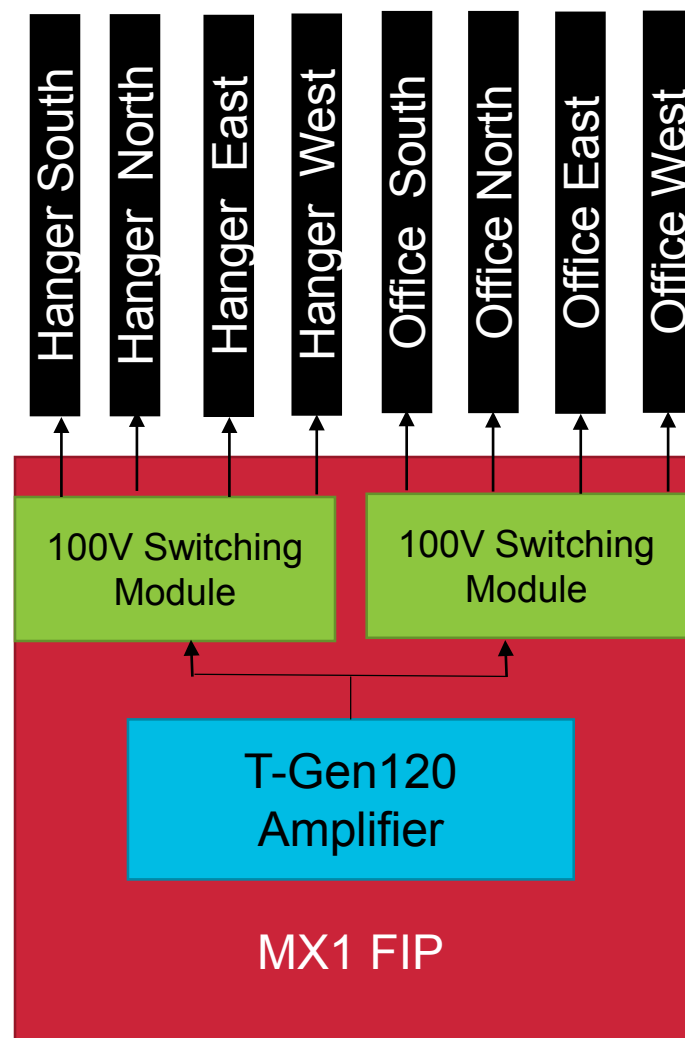
# 100V Switching Module Features

- 4 x 100V Speaker outputs with individual open/short circuit supervision
- Capable of single (56k EOL) or dual 100k EOL branch wiring on each output
- Automatic disconnection of shorted outputs
- Each output controllable by T-Gen2 for area paging
- Suitable for T-Gen60 or T-Gen120 amplifiers



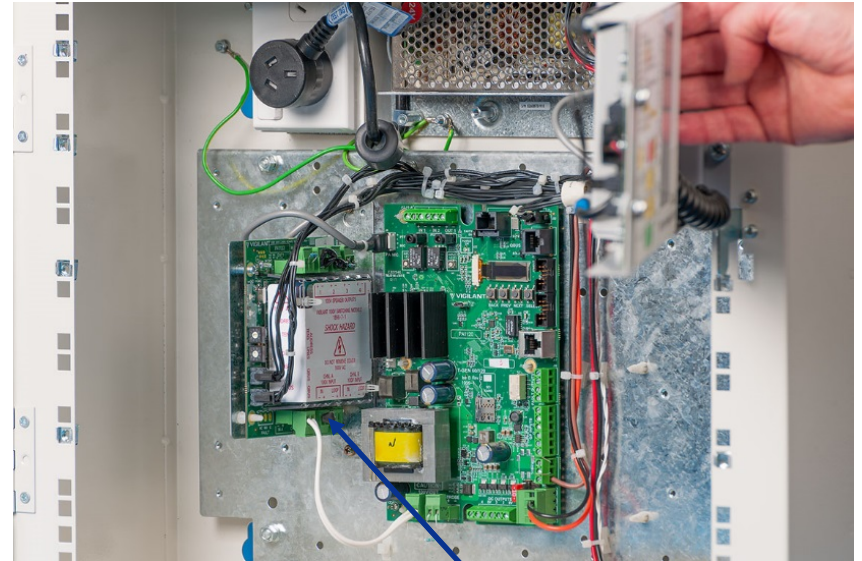
## 100V Switching Module Features - Continued

- Demountable screw connectors
- Fault conditions reported to the T-Gen2 amplifier OLED display and on board LEDs
- Daisy-chain modules together for multiple outputs
- Multiple outputs configurable to provide 1-4 areas of PA paging
- Complies with AS 4428.16  
ActivFire Listed afp-3315  
FPANZ Listed VF/426



# 100V Switching Module Mounting Options

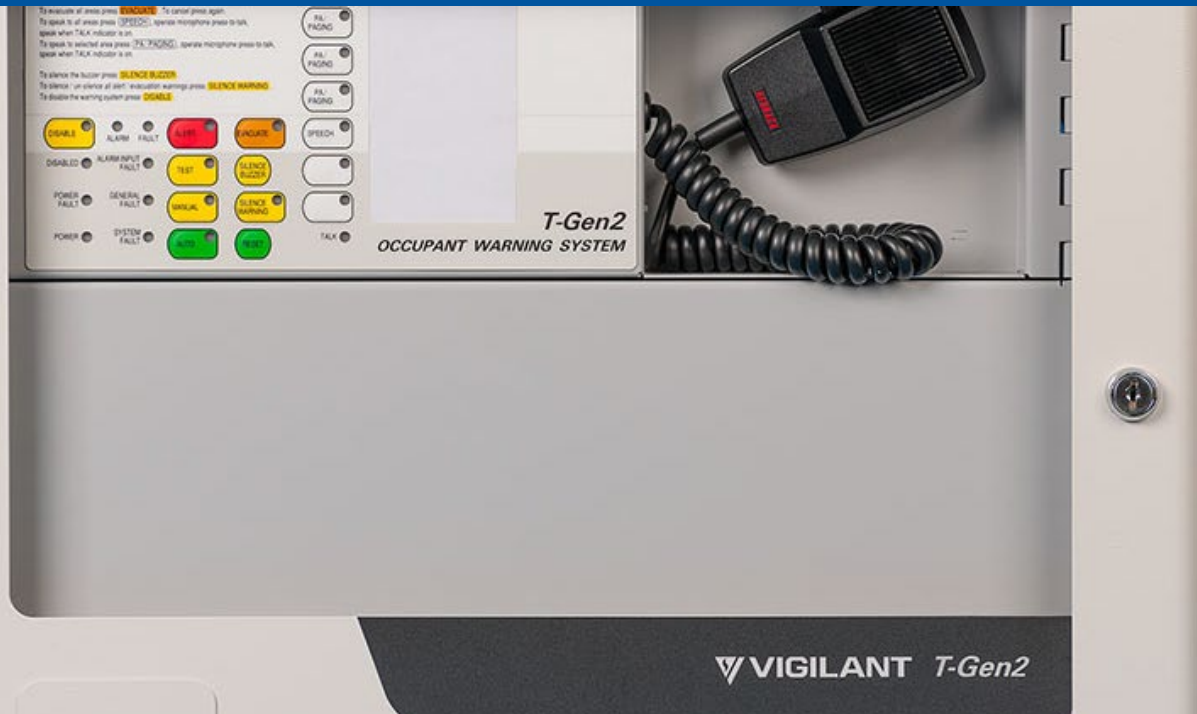
- 100V Switching Module includes all cabling to wire & hardware to mount in an MX1 fire panel or T-Gen2 8U/18U BOWS
- Can be fitted to Simplex 28U/40U 4100ES / ESi panels using an FP1120 module bracket



FP1117 Switching Module mounted in 8U BOWS

# Building Occupant Warning Systems (BOWS)

## VIGILANT T-Gen2



# Building Occupant Warning System

The VIGILANT T-Gen2 Grade 3 BOWS is a self-contained Grade 3 Emergency Warning System (EWS) with a supervised 100V speaker line and digitised speech messages and is available in 2 models:

- FP1144 8U, 60W
- FP1134 15U, 120W



15U Titania Cabinet

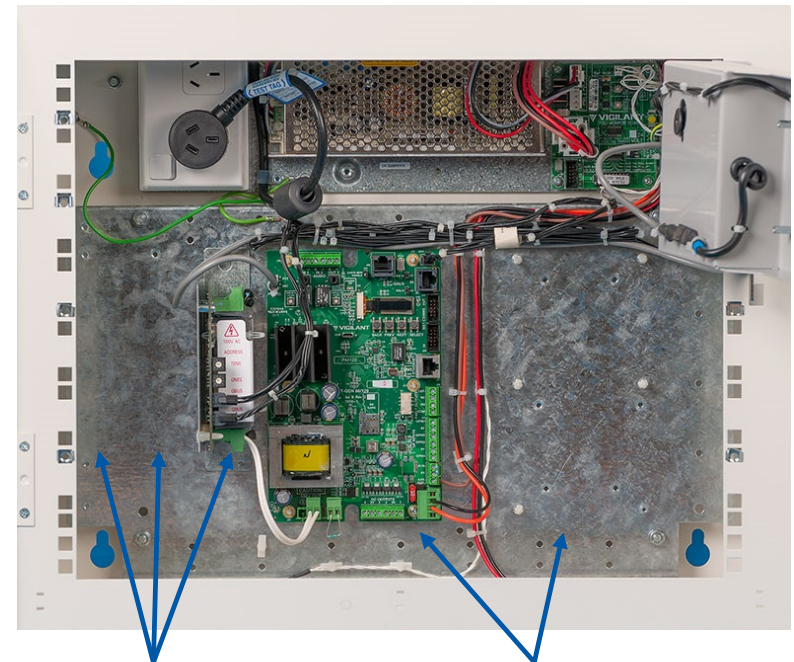


8U Titania Cabinet

# 8U Building Occupant Warning Panel

- Built-in PSU - 14A
- Contains 60W D-class amplifier
- Expandable to 2 x T-Gen60
- Accommodates up to 3 x Splitter or Switching modules
- Space for 2 x 12V 17Ahr batteries

8U BOWs Internal mounting



Splitter Module locations

T-Gen60 locations

# 15U Building Occupant Warning Panel

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- Built-in PSU - 14A
- Contains 120W D-class amplifier
- Accommodate one additional T-Gen120 or T-Gen60 amplifier
- Supports up to 8 x Splitter or Switching modules
- Space for 2 x 12V 75Ahr batteries



# Building Occupant Warning panel Features

- Complies with AS 4428.16  
ActivFire Listed afp-3315  
FPANZ Listed VF/429 VF/430
- Two user-programmable buttons use to generate local warning messages, drills or tests
- Controls for Test, Silence Warning, Silence Buzzer, Reset
- Interface options for alarm trigger or fault output
- Optional Zone disable button

8U BOWS programmable buttons



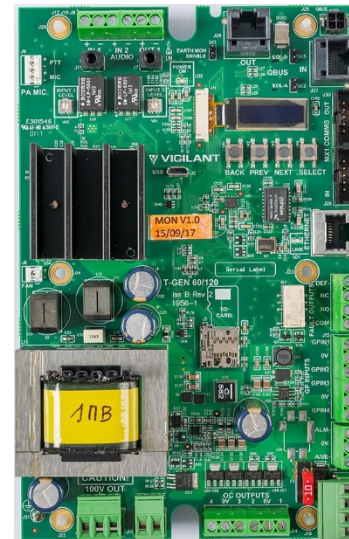
# Building Occupant Warning System

Each are fitted with:

- Grade 3 user interface and PA microphone
- Programmable configuration and messages and additional storage for extra messages or tones via microSD card
- 2 Audio line inputs, 6 general purpose inputs and 4 Open Collector outputs
- 24V 2A Supervised Strobe output



Grade 3 User interface fitted to 8U and 15U BOWs



T-Gen60 comes fitted to 8U BOWs

# Remote Paging Console

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A BOWS zone paging console can be used to provide optional remote zone paging for a BOWS or standalone T-Gen2, configured with a 100V Switching module.

Paging console interfaces via a CAT5e cable with a maximum distance of 300m to a Audio Switcher module

Audio Switcher is powered by the BOWS or fire panel 24V PSU

**REDBACK**



A 4488 Paging Console

A 4489 Audio Switcher



# T-Gen2 Customer Benefits

<b>T-Gen2 Item</b>	<b>Feature</b>	<b>Customer Benefits</b>
T-Gen2 System	All components ActivFire & FPANZ listed as Grade 3 EWS	Compliant solution available to suit NCC 2019 requirements
T-Gen2	60W or 120W D-Class Amplifiers	High quality audio and 2 modes of operation to suit PSU load
T-Gen2	Additional storage via micro SD card	Storage and activation of site customisable non-emergency messages
Grade 3 User Interface	Controls for PA, Test, Silence Warning, Silence Buzzer, Reset	Easy to use colour coded controls, and customisable slip in labels
Grade 3 User Interface	Programmable configuration, user buttons and messages	Customise local warning messages, drills or tests
T-Gen2 OLED	Fault diagnostics and site setup	Reduces fault investigation time and provides quick set up options.

# T-Gen2 Customer Benefits

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<b>T-Gen2 Item</b>	<b>Feature</b>	<b>Customer Benefits</b>
Splitter and Switching Module	Can daisy chain multiple modules together and each output is short circuit independent	Lower hardware cost for multiple speaker circuits in zones
100V Switching Module	Switchable 4 way outputs	Customise up to 4 PA paging areas
100V Splitter Module	Can be installed with most amplifiers to a load of 120W	Use to retrofit existing sites
BOWS	Programmable configuration, user buttons and messages	Customise local warning messages, drills or tests.
BOWS	Expandable by adding extra T-Gen2 and Splitter / Switching Modules	Accommodate larger sites or site expansion