

Wireless Data Gathering Panel MODEL TS0825

PROGRAMMING GUIDE

The TS0825 Wireless DGP is a special purpose DGP integrated with an Inovonics¹ High Performance receiver. The TS0825 receives signals from the Inovonics range of Frequency Agile™ Transmitters providing up to 32 Virtual inputs and 2048 Duress inputs. All Inovonics FA type transmitters will function in the system. The TS0825 has a built-in Universal Programmer for programming any FA type transmitter that is to operate with the TS0825.

1. Setting the address of the Wireless DGP.

****IMPORTANT NOTE****

Changing the address switches will erase the TS0825 Input Database and change the number of inputs to 16.

Using the ADDRESS DIP Switches (see Installation Section pg 6) select the required DGP address for this Wireless DGP.

2. Programming the address/es of the Wireless DGP.

Challenger Installer Menu Option 4 - Poll
Select menu options 4 POLL DGP. Enter the DGP address according to the DIP Switch address setting on the WDGP.

3. Configuring the Wireless DGP.

Challenger Installer Menu Option 28 – Remote Control. Select menu option 19 INSTALL – 28 REMOTE CONTROL. The following information will appear in the RAS display:

Remote Type: 1-DGP, 2-RAS
Type No: __

Key in 1 for DGP and press *enter*. The RAS display will show:

Remote DGP Setup
DGP No: __

Key in the DGP address as set above and press *enter*. The RAS display should show:

Wireless DGP TS0825
0-Exit Menu: __

Press *Enter* or *Next* keys to traverse the Wireless DGP menu system.

4. Configuration Steps: Step 1- Active Inputs.

****IMPORTANT NOTE****

For firmware revision TS0825.V04 or greater "Inputs checked in" is now "Inputs active".

TS0825 Menu Option 1-Active Inputs.
Select menu option 1 **Inputs Checked-In** and press *enter*. The RAS display will show similar to the following:

No Inputs Checked-In
#-Exit

or

17, 18, 19, 20, 21
***-More, #-Exit**

Press *** (*More*) key to view more devices or press *#* (*Enter*) to exit the menu option.

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Step 2- Input Status.

TS0825 Menu Option 2-Input Status.

Select menu option 2 Input Status and press *enter*. The RAS display will show:

Select Input (17-32)
No: __

where (17-32) is the current active Input number range of DGP 1, key in the Input number required and press *enter* to view the status selections.

Alarm Sealed/Unsealed
*-Next, #-Exit

Device Battery OK/Low
*-Next, #-Exit

Tamper Sealed/Unsealed
*-Next, #-Exit

Supervision OK/Failed/Disabled
*-Next, #-Exit

Site No: XXX
*-Next, #-Exit

Press *** to view the next menu option or press *#* to exit the option.

Note: **Site No. XXX** is the site code assigned to the selected device. See Menu option 9.

Step 3- Signal-Margin

TS0825 Menu Option 3-Signal Margin.

Select menu option 3 Signal Margin and press *enter*. The RAS display will show:

Select Input (17-32)
No: __

where (17-32) is the current active Input number range of DGP1.

Key in the Input number required and press *enter* to view the Signal Margin determined by the receiver for the last transmission of the selected Input transmitter.

Input 25, 30db
*-Next, #-Exit

Press *** to view the next Input's Signal Margin:

Input 26, 42db
*-Next, #-Exit

Press *#* to exit this menu option.

Note: Signal Margin is the difference between the radio signal strength and the signal noise as seen by the DGP receiver and is expressed in decibels (db)

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4- Program Device

TS0825 Menu Option 4-Program Device

Select menu option 4 Program Device and press *enter*.

The RAS display will show:

1-Fixed, 2-Duress

No: __

Press 1 to select the fixed device option or 2 to select the Duress device option.

Fixed Type

Press 1 and the RAS display will show:

Frequencies: AUST/USA

***-Change,#-Next**

If programming transmitters for Australia or New Zealand, select **AUST** else select **USA**. Press # to proceed to the next option.

Check-In Time: 60 Sec / 5 Min

***-Change, #-Next**

Devices can be programmed to perform a supervisory check-in once every 60 seconds or 5 minutes. Select 60 seconds if only a small number of devices are operating within reception range of the DGP receiver (including all devices assigned to any other DGP or system) else select 5 minutes. Press *enter* to proceed to the next option.

Site Number: XXX

(1-511) No: __

Key in one of the two Site Numbers (1 – 511) as shown in Menu 9 and press *enter*. Press *enter* again to proceed to the next menu item.

****IMPORTANT NOTE****

This site code must be entered into site code A or B at menu 9 of the relevant DGP.

DGP Number: XX

(1-15) No: __

Key in the DGP Number (address (1 – 15)) of the DGP that the device is required to operate on and press *enter*.

Note: The Site Number or DGP Number does not need to be the numbers assigned to the DGP on which the current programming session is taking place.

Press *enter* again to proceed to the next menu item.

Input Number: XX

(xx-xx) No: __

Key in the Input Number (17 – 48 for DGP 1) of the device to be programmed and press *enter* to proceed to the device operating mode options.

EOL Resistor: Yes / No

***-Change, 0-Skip**

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IMPORTANT NOTE

To avoid undesirable operation, check the Inovonics Transmitter Instruction Manual for the correct contact type.

Only devices fitted with external contacts respond to this option. See the device manual for operating modes and features. Select **Yes** if an End Of Line Resistor is required for the External contact circuit and press *enter* to proceed to the next option.

External Contact: N/Open/N/Closed
***-Change, 0-Skip**

External contacts may be programmed for Normally Open or Normally Closed operation. Select **N/Open** for Normally Open or **N/Closed** for Normally Closed. Press *enter* to proceed to the next option.

Internal Contact: Yes/No
***-Change, 0-Skip**

Only devices fitted with internal contacts respond to this option. See the device manual for operating modes and features. Select **Yes** if Internal Wide Gap contacts are required.

Contact Type: Contact/Push Button
***-Change, 0-Skip**

Devices are fundamentally of two types. Some transmitters are fitted with **Contacts** while others are fitted with **Push Buttons**. The Push Button types transmit an activate signal only. The de-activate operation needs to be performed by the DGP. Selecting **Push Button** will cause the deactivate function to be performed by the DGP.

Note: Ensure that **Push Button** is not selected for any non push button device as erroneous operation may occur.

Press enter to proceed to the next option:

Input XXX, DGP XX Ready to Program
***-Change, #-Exit**

Connect one end of the programming cable to the 3 PIN programmer connector on the WDGP (polarity does not matter) and connect the other end to the 3 pin connector under the rear cover of the Inovonics Transmitter device. Press the reset button on the transmitter device and note the single green LED flash on the WDGP printed circuit board. If the LED does not flash:

** IMPORTANT NOTE **

When programming is complete reinstall the jumper on the three pin transmitter programming connector. Failure to do so may produce incorrect messages to Challenger.

1. Check if a new transmitter battery is installed and of the required voltage.
2. Check that the cable is connected both ends.
3. Check that the DGP menu is still active.

When a **Fixed** device is programmed, the menu will automatically show the next INPUT/DGP number to be programmed as follows:

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Duress Type

(The ***-Change** key enables quick editing of the current **Fixed** type setup.)

Press *enter* to end the Fixed type option. The RAS display will show:

1-Fixed, 2-Duress
No: __

Press 2 to select the **Duress** type programming options.

Frequencies: AUST/USA
***-Change, #-Next**

If programming transmitters for Australia or New Zealand, select **AUST** else select **USA**. Press # to proceed to the next option.

Site Number: XXX
(1-511) No: __

Key in one of two Site Numbers (1 – 511) as defined in Menu option 9 and press *enter*. Press *enter* again to proceed to the next menu item.

User Offset: XXXX
(0-65535) No: __

Key in a User Offset (0 – 65535) and press *enter*. Press *enter* again to proceed to the next menu item.

EOL Resistor: Yes/No
***-Change, 0-Skip**

Only devices fitted with external contacts respond to this option. See the device manual for operating modes and features. Select **Yes** if an End Of Line Resistor is required for the External contact circuit and press *enter* to proceed to the next option.

External Contact: N/Open/N/Closed
***-Change, 0-Skip**

External contacts may be programmed for Normally Open or Normally Closed Contact operation. Select **NO** for Normally Open or **NC** for Normally Closed. Press *enter* to proceed to the next option.

Internal Contact: Yes/No
***-Change, 0-Skip**

Only devices fitted with internal contacts respond to this option. See the device manual for operating modes and features. Select **Yes** if Internal Wide Gap contacts are required.

Note: Duress devices do not reside in the WDGP database. A Duress alarm is passed directly to the Challenger for processing.

IMPORTANT NOTE

To avoid undesirable operation, check the Inovonics Transmitter Instruction manual for the correct contact type.

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User Number 1 Ready to Program

***-Change, #-Exit**

Connect the programming cable (see Fixed Types) and press the transmitter reset button. The WDPG "PRG" LED should flash once.

The ***-Change** key enables quick editing of the current duress type setup.

Press *enter* to end the Duress type programming options.

Each time a device is programmed or a RAS key is pressed, the menu timer is reset. The Programmer remains active for the time the DGP menu is active.

The last programmer setup will be retained on exit from menu 4.

5- Clear Input

TS0825 Menu Option 5-Clear Input

Select menu option 5 Clear Input to clear the current status of an individual input or all inputs and press enter. The RAS display will show:

1-Clear Input, 2-Clear All Inputs

No: __

1: Clear Input

Select 1 to clear the status of selected inputs to default and the RAS display will show:

Select Input (49-80)

No: __

where **(49 - 80)** is the current Input number range (see option 7) of DGP 3, key in the Input number required (say 49) and press *enter*. All setup conditions for this input will be returned to default. The RAS display will show:

Clear Input 49?

***-Yes, #-No**

Press ***** key to clear the selected Input and the display will show:

Clear Input 50?

***-Yes, #-No**

If Input 50 is not to be cleared, press **#** key to exit

2: Clear All Inputs

1-Clear Input, 2-Clear All Inputs

No: __

Select 2 to Clear All inputs in the DGP database and the RAS display will show:

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Clear All Inputs?

*-Yes,#-No

Note: When an Input is cleared and a transmitter remains active the cleared input will return active with the next check-in, however its setup conditions may have changed.

6- 16/32 Inputs

TS0825 Menu Option 6-16/32 Inputs

Select menu option 6 to change and view the size of the current active DGP database. The RAS display will show:

16 Inputs Maximum

*-Change,#-Exit or

32 Inputs Maximum

*-Change,#-Exit

Press '*' to toggle between 16 or 32 active database Inputs. Press '#' to exit menu item.

7- Input Number Range

TS0825 Menu Option 7-Input Number Range

Select menu option 7 to view the current active Input number range for this DGP. The RAS display will show:

DGP 3, Inputs 49-80

*-Exit

for DGP number **3** and the number of database Inputs is set to **32** at Menu option **6**.

8-Factory Defaults

TS0825 Menu Option 8-Factory Defaults

Select menu option 8 to set this DGP to the Factory default values. The RAS display will show:

Set Factory Defaults

*-Default, #-Exit

If 'Default' is selected, the input database is cleared, the DGP Site number and User Offsets are set to zero, the Supervision Timer is set to 20 minutes and the programmer setup is returned to default.

If 'No' is selected, the display will return to the Main menu without changes.

9-Site Number/User Number.

TS0825 Menu Option 9-Site Number

Select menu option 9 to view or change the Site Numbers and User Offsets. The RAS display will show:

1-Site No. A, 2-Site No. B

No: __

Press '1' then *enter* to view/modify **Site No. B** The RAS display will show:

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IMPORTANT NOTE

Changing a site code will delete all check-ins for that Site code.

Site No. A: 0
(0-511): ____

To change the Site No, key in the required number in the range 1 to 511 and press *enter*.

Press '#' to move to the next menu option, **User Offset**.

NOTE: A Site No. of zero (0) will switch off transmitter reception.

User Offset A: 0
(0-65535): _____

To change the User Offset, key in the required number in the range 1 to 65535 and press *enter*.

Press '#' to move to the next option. The display will show:

1-Site No. A, 2-Site No. B
No: ____

Site No. B and **User Offset B** functions the same as **Site No A** and **User Offset A**.

NOTE: The Duress number and the User Offset number are added together when a Duress message is sent to Challenger. A sum greater than 65535 will roll over through zero. Negative User Offsets are not permitted.

10-Supervision Timer

TS0825 Menu Option 10-Supervision Timer

Select menu option 10 to view or change the Supervision Timer setting. The RAS display will show:

IMPORTANT NOTES

- The default supervision time is 60 minutes.
- DGP's with version TS0825 or greater, have a supervision timer from 10 minutes to 150 hours.

Supervision Time: 60 Minutes (Default)
* = -, # = +, 0-Exit

Press '*' to decrement or '#' to increment through the supervision times from 10 minutes to 150 hours. Press '0' to Exit from the Menu. The next display will show:

Supervision Time: 70 Minutes
* = -, # = +, 0-Exit

Note: The Inovonics transmitters can be programmed to check-in to the DGP every 60 seconds or 5 minutes. For technical reasons, this check-in time of each device may vary widely. Therefore the DGP requires a wide tolerance on the time it checks for the existence of each transmitter device that is programmed to check-in.

As a general rule, a small number of devices will function normally with a 60 second Check-In and a 10 minute Supervision Time performed by the DGP. However, as the number of devices increase, temporary supervision failures may be experienced. In this event, the DGP Supervision time may be increased, or the Transmitter devices may be reprogrammed to a 5 minute check-in time.

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11: Supervision Options

TS0825 Menu Option 11-Supervision Options

Select menu option 11 to view or change the Supervision Options setting of an Input. The RAS display will show:

Select Input (49-80)

No: __

where (49 - 80) is the current active Input number range of DGP 3, key in the Input number required (say 55) and press *enter*. The RAS display will show:

Input 55 Enabled

*-Change, #-Exit

or

Input 55 Disabled

*-Change, #-Exit

or

Input 55 Relay Controlled

*-Change, #-Exit

Press '*' Key to toggle between **Enabled**, **Disabled** or **Relay Controlled** (where "Relay" is the first Relay assigned to the WDGP, ie: DGP 1 RELAY 17), or press '#' to exit menu option.

Note 1: The **Supervision** of any Input may be controlled from the Challenger by selecting the **Relay Controlled** option. When, for example, Relay 17 (Relay 1 of DGP 1) is inverted, the **Supervision** of all Inputs with the **Relay Controlled** option selected will be disabled.

Note 2: Devices such as the **FA214** that have multiple Push Buttons, automatically assign Input numbers in the DGP database to each Button number. If the Transmitter is programmed to Input 17, Button 1 is assigned to Input 17, Button 2 is automatically assigned to Input 18 and so on.

The transmitter will only check-in to the base address Input 17. Therefore supervision will need to be **Disabled** on Inputs 18, 19 and 20 for a 4 button transmitter, otherwise supervision failures will eventually occur.

12: Change Contact State

TS0825 Menu Option 12-Change Contact State

Select menu option 12 to view or change the Contact State option for each Input in the database. The RAS display will show:

Select Input (49-80)

No: __

where (49 - 80) is the current active Input number range of DGP 3, key in the Input number required (say 62) and press *enter*. The RAS display will show:

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Contact 62 Normal
*-Change, #-Exit

or

Contact 62 Inverted
*-Change, #-Exit

Contact State **Normal** is the default and most devices will function normally with this setting, however some devices may need the contact State to be **Inverted** to function normally.

If a device has been programmed with External Contacts **Normally Closed** instead of **Normally Open**, this may be corrected in the WDGP by selecting the Inverted option for that point.

16. 13: Last Device Received

TS0825 Menu Option 13-Last Device Received

Select Menu option 13 to view the set-up of the **Last Device Received** by the Wireless DGP. The RAS display will show:

1-This DGP, 2-All DGP's
No: __

Press "1" then *enter* to view the **Type** and **Input/ User** number of the last **Fixed** or **Duress** type device received by the WDGP. The Ras display will show:

No Device
*-Refresh, #-Exit

if there have been no device transmissions received since the last WDGP reset or:

Fixed, Input 17
*-Refresh, #-Exit

if a Fixed type transmitter was received for DGP 1 or:

Duress, User 3
*-Refresh, #-Exit

if a Duress type transmitter was received from User 3.

Note: **Last Device Received** will only be updated by Change Of State transmissions, not check-in transmissions.

Press #-Exit to return to the selection Menu.

1-This DGP, 2-All DGP's
No: __

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Press '2' then *enter* to view the **Last Device Received** status of all transmitters programmed to be received by any WDGP. The RAS display will show:

Fixed, Input 52
***-Next, #-Exit**

for a Fixed Point on DGP 3 or:

Duress, User 1000
***-Next, #-Exit**

for a Duress device, User 1000.

Press # to Exit or * to show:

Site Number: 200
***-Next, #-Exit**

where the device has been given the Site Number 200.

press # to Exit or * to show:

Battery: OK/Low
***-Next, #-Exit**

press # to Exit or * to show:

Tamper: Sealed/Unsealed
***-Next, #-Exit**

press # to Exit or * to show:

Signal Margin: 42db
***-Next, #-Exit**

press # to Exit or * to return to the option selection menu.

Note: The data in this option will not be updated until the end of option selections or #-Exit is pressed.

17. 14: Version

TS0825 Menu Option 14-Version

Select menu option 14 to view the current software version operating in this DGP. The RAS display will show:

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TS0825.V01

Where TS0825.V01 is the first release.

(For information relating to the Inovonics transmitters, refer to the specific operating instructions provided with each device.)

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SPECIAL NOTES:

NOTE: The Wireless DGP works on Version 8 Challenger only.

1. Transmitter devices programmed as **Duress** types, provide Alarm information only to the Challenger. This alarm information can be the following types:
 - a) Duress Alarm
 - b) Tamper Alarm (If the transmitter is fitted with Tamper)
 - c) Low Battery Alarm

NOTE: It is impossible to provide restore information for these alarm conditions.

2. **Push Button** type Duress transmitters do not provide Tamper Alarm information.
3. **Duress** devices will be received by all active WDGP's with a matching Site Number. Each WDGP will pass the message to Challenger, which can result in multiple Duress alarms from the same User with a common time stamp. To avoid multiple duress alarms, program a unique duress site code in each WDGP.
4. When programming the External Contact options, ensure that the correct contact type (Normally Open or Normally Closed) is selected, otherwise unpredictable events may occur. Consult the Inovonics Transmitter manual for the correct contact type.
5. All menu setup changes are saved to non volatile ram on Exit from each menu selection.
6. Ensure that the link is replaced on any two pins of the Inovonics Transmitter programming connector when the programming of a device is complete. See page 6 of this Programming Guide and the Inovonics Transmitter manual.
7. If the Inovonics receiver fails, the DGP Comms is stopped and the green programming LED will flash twice per second. Please return the unit to Tecom Systems for repair.

NOTE: If an input is programmed on a Challenger (Wireless DGP), a tamper is issued, and will be restored when the device is programmed into WDGP.

EVENTS SENT TO MONITORING STATION

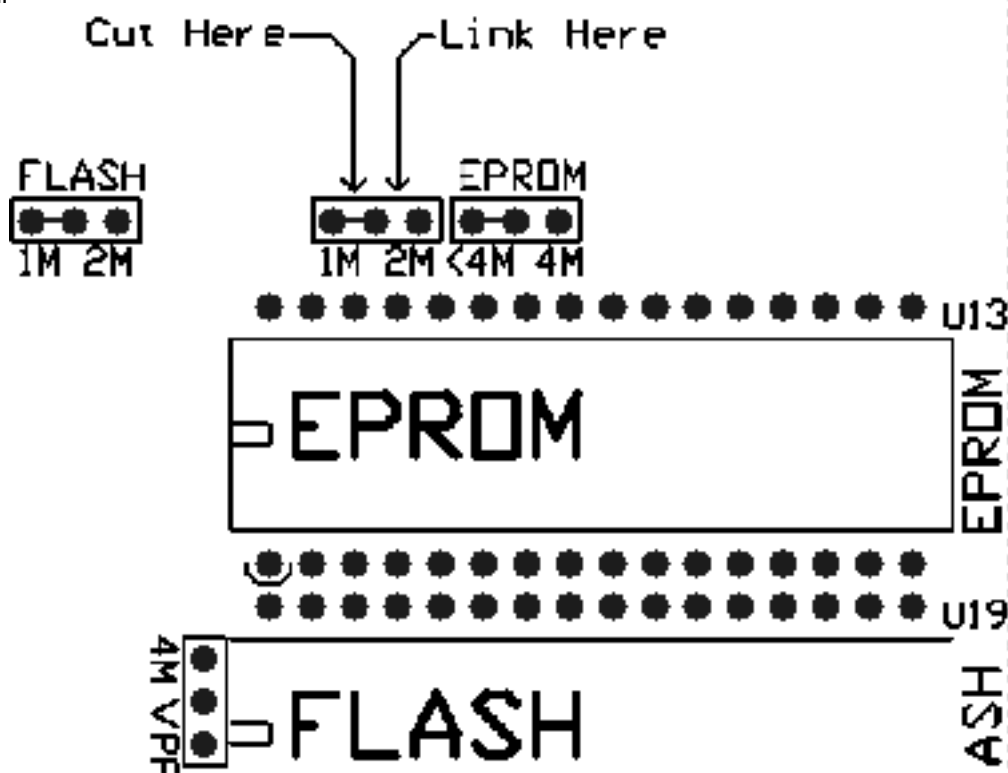
<i>Contact</i>	<i>I.D.</i>	<i>Format / Tecom Direct Line - Large / Radio</i>		
E121	00	C001	Panic Duress	No Restoral
E381	01	C001	Supervision Fail *	
E383	01	C001	Fixed Input Tamper *	
E702	00	C001	Duress Tamper *	
E701	00	C001	Duress Battery Low *	
E384	00	C001	Detector Battery Low *	

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Procedure to Upgrade a TS0816 Challenger panel to use 2M EPROMS

The following procedure details the steps that are required to upgrade a Version 8 Challenger panel to support 2 M EPROMS;

- 1) Locate the EPROM socket U13 on the Challenger board. Immediately above this socket (when viewed in the normal installation position) you will observe two links labeled EPROM.
- 2) The left-hand link will be further labeled with "1M" on its left and "2M" on its right. By default earlier challenger revisions are defaulted to use 1 M EPROMs.
- 3) Noting the position of this link, remove the Challenger PCB from the base. Turn the PCB over and look at the link location from the rear of the board. You will observe that the center and right-hand pads (when viewed from the rear) of the link are joined by a short track. This track corresponds to the 1 M default.
- 4) With a very sharp pocket knife, cut the link between these two pads. Be very careful not to cut or damage any other track in this area as it will void the boards warranty (see below).
- 5) A link must now soldered between the center and left-hand pads (when viewed from the rear). This will allow the use of 2 M EPROMS.
- 6) Once the link is installed. reinstall the Challenger PCB into its metalwork. and reconnect all cables.
- 7) The Chall



IMPORTANTNOTE

Any damage caused to the Challenger is NOT covered under the conditions of the Tecom Systems warranty. If you do not feel comfortable with undertaking this procedure, Tecom Systems offer an upgrade service. Please contact our sales office for details.



Please note, this product conforms to the standards set by Standards Australia on behalf of the Australian Telecommunications Authority (AUSTEL) and the Spectrum Management Agency (SMA).

WARNING:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

The Challenger is Designed and Manufactured by:

Tecom Systems

646 Whitehorse Road
MITCHAM VIC AUST 3132

Telephone: 03 9259 4700

Facsimile: 03 9259 4799

www.tecom.com.au

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¹ Frequency Agile is a trade name of Inovonics Corporation, USA.