



## ACTIVE RFID



The TG501-A ActivDuo Personnel Tag is an active tag that continuously transmits a unique ID number, which can be detected by Wavetrend® readers. An internal battery powers the tag and Wavetrend's patented ultra low power use design ensures longer battery life at higher rates of transmission than any other brand of active RFID tag. The tag offers immediate alerts on movement.

- **Beacon tag transmitting a unique ID & data at pre-set intervals**
- **Low cost, slim tag design for personnel & non-metallic assets**
- **Ultra low power consumption provides exceptional battery life**
- **Ultra long-range transmitter**
- **Low battery warning**
- **Anti-tamper alert option**
- **Instant movement alert**
- **Can incorporate popular Access Control RFID chips**

KEY FEATURES	BUSINESS BENEFITS	AVAILABLE	
		L-Series	W-Series
Tag can be configured to hold standard 26-bit or 32-bit Wiegand numbering	Allows tag to be used with existing access control systems together with the RFID system.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Configurable settings include:</b>			
▪ Site/vendor ID		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Tag ID		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Tag Age Counter		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Product Unique Code (PUC)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Various transmission repetition intervals (default 10s)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Movement Alert		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Tamper Alarm		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Tamper Latch		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Collision avoidance algorithm	Reduces loss of data caused by simultaneous transmissions from multiple tags.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> enhanced
Ultra low power consumption	Lifespan of 7+ years when transmitting at the standard or greater interval.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sealed to IP65 standards	Splash proof and intrinsically safe.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Housing incorporates dip-slot	For convenient wearing and flexibility of use. A no-slot variant is available on request.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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### Typical Applications

The TG501-A Personnel Tag is generally used for security & safety applications requiring people to carry a tag. The housing incorporates a clip-slot for convenient wearing for that purpose. However, it may be used in other applications such as asset monitoring. The mounting and affixing method for the tag depends on the type of application it is used in. The tag must not be fixed directly onto metal surfaces.

The TG501-A-DT tag is a 'dual technology' tag that incorporates a customer supplied passive RFID PET e.g. the HID *MicroProx™* chip, allowing the tag to function on other passive RFID systems such as a door access control system.

### Model Range

The tag is available in two models, with two variants for each model. Each model operates with a different air interface protocol. The tags can be ordered\* using the part numbers listed below:

L-Series	
L-TG501-A	: Standard tag
L-TG501-A-DT	: Includes passive PET
W-Series	
W-TG501-A	: Standard tag
W-TG501-A-DT	: Includes passive PET

### Air Interface Protocols

'L-Series' and 'W-Series' refer to 2 different proprietary communication protocols used between Wavetrend® tags and readers. The L-Series reader must be used with Wavetrend® L-Series tags. The W-Series reader must be used with Wavetrend® W-Series tags. Both types of reader can operate on the same reader network infrastructure.

L-Series tags provide ultra long read range and are ideal for use in low tag

### Specifications

<b>Environmental</b>	
Operating temperature	: -10°C to +60°C
Storage temperature	: -20°C to +70°C
Humidity	: 5% to 90% (non-condensing)
<b>Physical</b>	
Size	: 86 x 54 x 5 mm
Weight	: 24g
Color	: Grey (L-Series) and Black (W-Series)
Material	: ABS (ultrasonically sealed) IP65
<b>Radio Frequency</b>	
Transmit Frequency	: 433.92 MHz
Power Output	: 72dB <sub>μ</sub> V/m @3m, 4300 μV/m
Modulation	: ASK
Bandwidth	: 1 MHz
Stability	: SAW Stabilized
Range	: 1 to 100+ meters (actual range is determined by the choice of reader & antenna used to detect the tag and the environment it is used in)
<b>Electrical</b>	
Power	: Internally powered by lithium battery
<b>Accessories</b>	
TA501	(All sold in packs of 10)
TA501-AT	: Tag attachment kit : Tamper alerting tag attachment kit

density (< 30 tags per reader) operations such as personnel tracking, small asset management applications and access control systems.

W-Series tags are more dynamic and flexible in the data they can transmit, offer improved data compression capabilities and are ideal for high tag density applications (>30 tags per reader) and provide an ideal platform for applications requiring customization

W-Series tags can be set to transmit up to 25 bytes of user-specified information in addition to, or in replacement of, the standard tag information. W-Series tags can be customized on request to incorporate digital sensory devices, such as a thermometer, transmitting the dynamic sensory information with every transmission.

### Ordering & Further Information

For more information on the TG501-A Personnel Tag or for information on how to purchase it please email Wavetrend's Sales team: [sales@wavetrend.net](mailto:sales@wavetrend.net)

For more information on Wavetrend®, our active RFID products & Professional Services and on joining our Accredited Partner program, visit our website: [www.wavetrend.net](http://www.wavetrend.net)

Certifications    

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TG501-A-PI-00-LT.DOC

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