

GPS/GNSS Combination Antenna

PANORAMA ANTENNAS

GPSK-TET



High performance combination antenna
Active GPS/GNSS 30dB gain LNA
2dBi flexible gain whip 380-430MHz TETRA
Single hole fixing

The GPSK-TET antenna range is a dual function, high performance TETRA antenna with an active GPS/GNSS module in the base.

The TETRA whip covers 380MHz to 430MHz, with 2dBi gain.

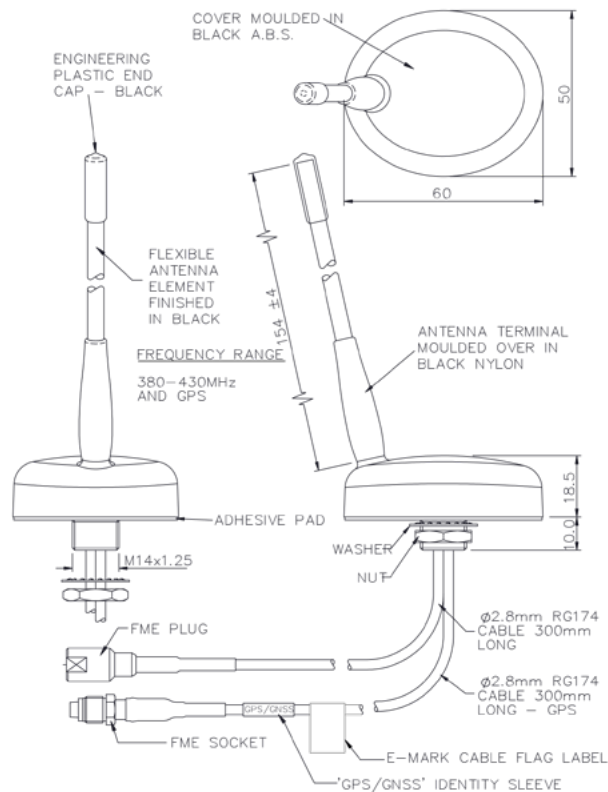
The GPSK base can be installed on a roof up to 6mm thick using only a single 15mm hole. An extender kit is available for thicker roofs.

The dual function of the Panorama GPSK range makes the antenna a popular choice for public safety, transportation and other public service & utility vehicles around the world.

This antenna can be provided with suitable extension coaxial cables as a 'plug & play' kit for all TETRA terminals.

Technical Drawing

GPSK-TET Shown



GPS/GNSS Combination Antenna

PANORAMA ANTENNAS

GPSK-TET

Product Data

Part No.

GPSK-TET

Electrical Data

Frequency Range (MHz)	380-430
Gain: Isotropic	2dBi
Compared to 1/4 wave	0dB
Polarisation	Vertical
Pattern	Omni-directional
Impedance	50Ω
Max Input Power (W)	25

GPS Data

Frequency Range (MHz)	1559 - 1612
VSWR	<2.5:1
Gain: LNA	30dB
Polarisation	Right Hand Circular
Operating Voltage	3 - 5V DC (fed via coax)
Current	Typical <20mA

Mechanical Data

Whip Length	154 (6")
Base Height	18.5 (0.73")
Base Length	60 (2.4")
Base Width	50 (1.96")
Operating Temp (°C)	-40° / +80°C (-40° / +176°F)
Colour	Black

Mounting Data

Fixing / Hole Size (mm)	Panel Mount / 15 (0.6")
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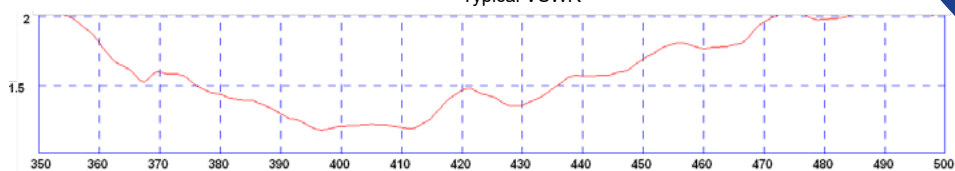
Cable Data

GPS/GNSS Cable

Comms Cable

Type	RG174
Diameter (mm)	2.8 (0.1")
Length (m)	0.3 (11.8")
Termination	FME socket (f)
	FME plug (m)

Typical VSWR*

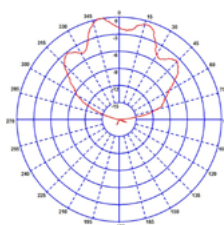
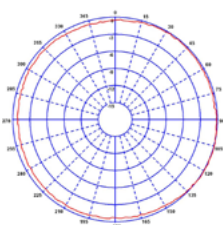
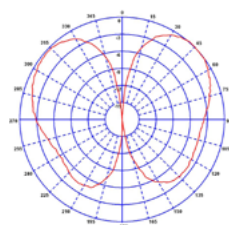


* Measured on a 600 x 600mm (2' x 2') groundplane with 5m (16') of CS23 cable.

Typical E-Plane (390MHz)

Typical H-Plane (390MHz)

Typical E Plane (GPS 1575MHz)



Electrical Data

GPS Combination Antenna



GPSK

Excellent performance
Active GPS element
Single hole fixing

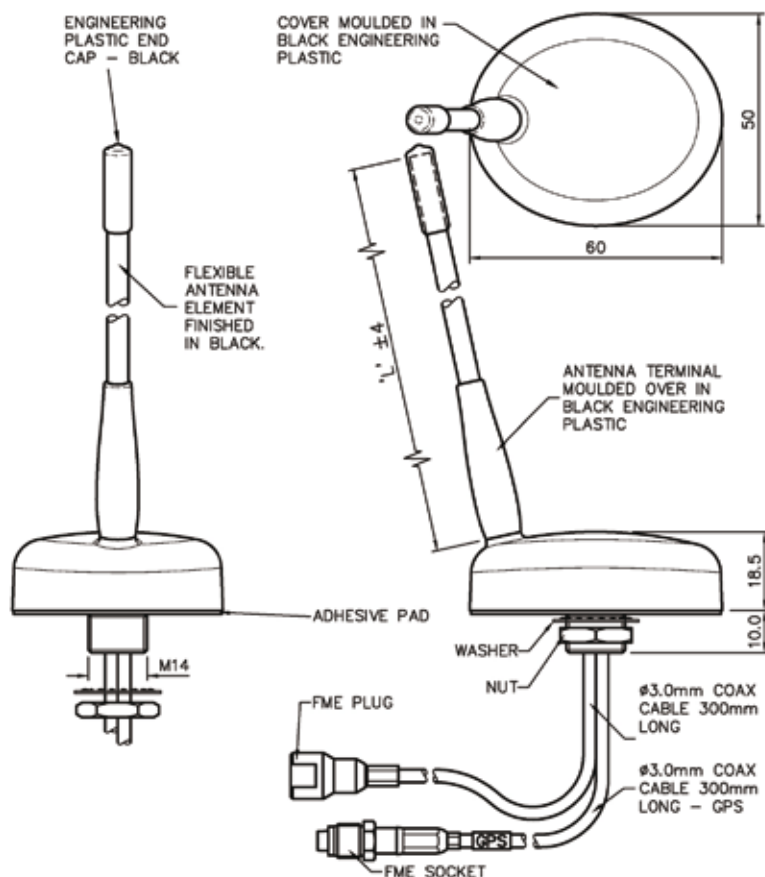
The GPSK antenna range is a dual function, high performance TETRA antenna with an active GPS element.

The GPSK range covers frequencies from 300MHz to 470Mhz, depending on the equipment requirements. With the ability to mount on a roof up to 6mm thick using only a single 15mm hole.

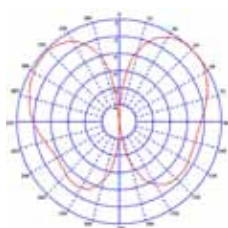
The dual functionality of the Panorama GPSK range makes the antenna a popular choice for police, buses, taxi's and other public service and utility vehicles.

This antenna can be provided as a 'plug & play' kit for all TETRA terminals.

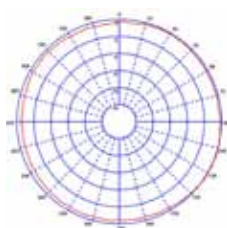
Technical Drawing



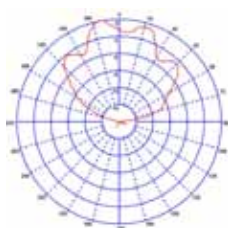
E-Plane (390MHz)



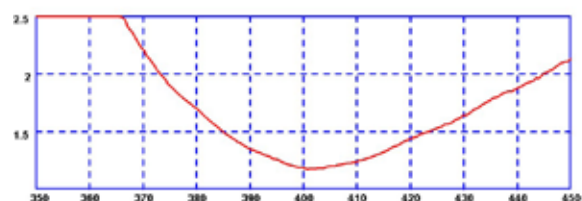
H-Plane (390MHz)



GPS



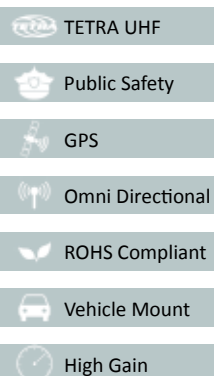
Typical VSWR*



*measured on a 1m x 1m groundplane

Part No.		GPSK-R1-FF	GPSK-R2-FF	GPSK-TET-FF	GPSK-S4-FF
Electrical Data					
Frequency Range (MHz)		300-334	350-370	380-430	450-470
Operational Band		R1	R2	TET	S4
Gain: Isotropic		2dBi	2dBi	2dBi	2dBi
Compared to ¼ wave		0dB	0dB	0dB	0dB
Polarisation		Vertical	Vertical	Vertical	Vertical
Pattern		Omni-directional	Omni-directional	Omni-directional	Omni-directional
Impedance		50Ω	50Ω	50Ω	50Ω
Max Input Power (W)		25	25	25	25
GPS Data					
Frequency Range (MHz)		1575	1575	1575	1575
VSWR		<1.5:1 ± 4MHz	<1.5:1 ± 4MHz	<1.5:1 ± 4MHz	<1.5:1 ± 4MHz
Gain: LNA		26dB	26dB	26dB	26dB
Polarisation		Right Hand Circular	Right Hand Circular	Right Hand Circular	Right Hand Circular
Operating Voltage		3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)
Current		Typical 14mA	Typical 14mA	Typical 14mA	Typical 14mA
Mechanical Data					
Dimensions (mm)	Whip Length	201	179	163	137
	Base Height	18.5	18.5	18.5	18.5
	Base Length	60	60	60	60
	Base Width	50	50	50	50
Operating Temp (°C)		-40° / +80°C	-40° / +80°C	-40° / +80°C	-40° / +80°C
Material		Engineering plastic	Engineering plastic	Engineering plastic	Engineering plastic
Colour		Black	Black	Black	Black
Mounting Data					
Fixing		Panel mount	Panel mount	Panel mount	Panel mount
Hole Size (mm)		15	15	15	15
Cable Data					
GPS Cable	Type	RG174	RG174	RG174	RG174
	Thickness (mm)	2.8	2.8	2.8	2.8
	Length (m)	0.3	0.3	0.3	0.3
	Termination	FME socket	FME socket	FME socket	FME socket
Comms Cable	Type	RG174	RG174	RG174	RG174
	Thickness (mm)	2.8	2.8	2.8	2.8
	Length (m)	0.3	0.3	0.3	0.3
	Termination	FME plug	FME plug	FME plug	FME plug

High Gain GPS Combination Antenna



GPSK-G

Excellent performance
Active GPS element
Single hole fixing

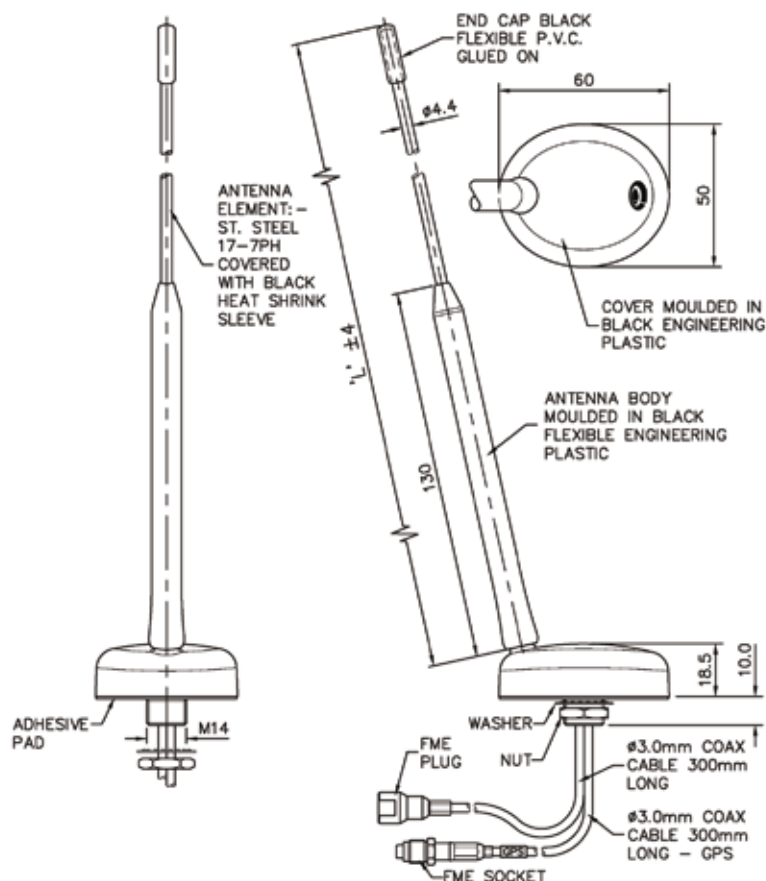
The GPSK antenna range is a dual function, high performance TETRA antenna with an active GPS element.

The GPSK-G range covers frequencies from 380MHz to 470Mhz, depending on the equipment requirements. With the ability to mount on a roof up to 6mm thick using only a single 14mm hole.

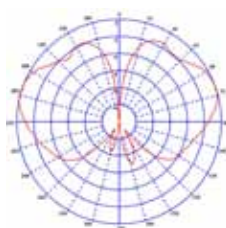
The dual functionality of the Panorama GPSK range makes the antenna a popular choice for police, buses, taxi's and other public service and utility vehicles.

This antenna can be provided as a 'plug & play' kit for all TETRA terminals.

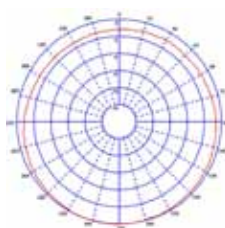
Technical Drawing



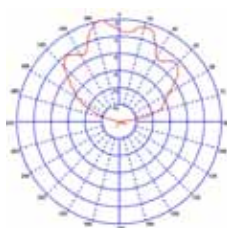
E-Plane (390MHz)



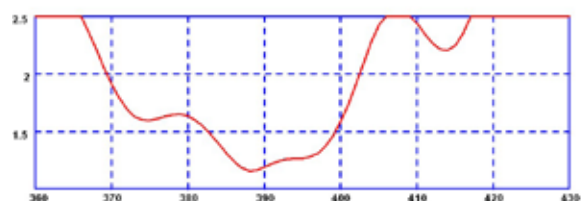
H-Plane (390MHz)



GPS



Typical VSWR



*measured on a 1m x 1m groundplane

Part No.				
		GPSK-S1G-FF	GPSK-S2G-FF	GPSK-S4G-FF
Electrical Data				
Frequency Range (MHz)		380-400	410-430	450-470
Operational Band		S1	S2	S4
Gain: Isotropic		5dBi	5dBi	5dBi
Compared to ¼ wave		3dB	3dB	3dB
Polarisation		Vertical	Vertical	Vertical
Pattern		Omni-directional	Omni-directional	Omni-directional
Impedance		50Ω	50Ω	50Ω
Max Input Power (W)		25	25	25
GPS Data				
Frequency Range (MHz)		1575	1575	1575
VSWR		<1.5:1 ± 4MHz	<1.5:1 ± 4MHz	<1.5:1 ± 4MHz
Gain: LNA		26dB	26dB	26dB
Polarisation		Right Hand Circular	Right Hand Circular	Right Hand Circular
Operating Voltage		3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)
Current		Typical 14mA	Typical 14mA	Typical 14mA
Mechanical Data				
Dimensions (mm)	Whip Length	465	417	370
	Base Height	18.5	18.5	18.5
	Base Length	60	60	60
	Base Width	50	50	50
Operating Temp (°C)		-40° / +80°C	-40° / +80°C	-40° / +80°C
Material		Engineering plastic	Engineering plastic	Engineering plastic
Colour		Black	Black	Black
Mounting Data				
Fixing		Panel mount	Panel mount	Panel mount
Hole Size (mm)		15	15	15
Cable Data				
GPS Cable	Type	RG174	RG174	RG174
	Thickness (mm)	2.8	2.8	2.8
	Length (m)	0.3	0.3	0.3
	Termination	FME socket	FME socket	FME socket
Comms Cable	Type	RG174	RG174	RG174
	Thickness (mm)	2.8	2.8	2.8
	Length (m)	0.3	0.3	0.3
	Termination	FME plug	FME plug	FME plug

GPS Combination Antenna with Diplexer for Mobile Car Kits



GPSK-CK

Excellent performance
Active GPS element
Single hole fixing

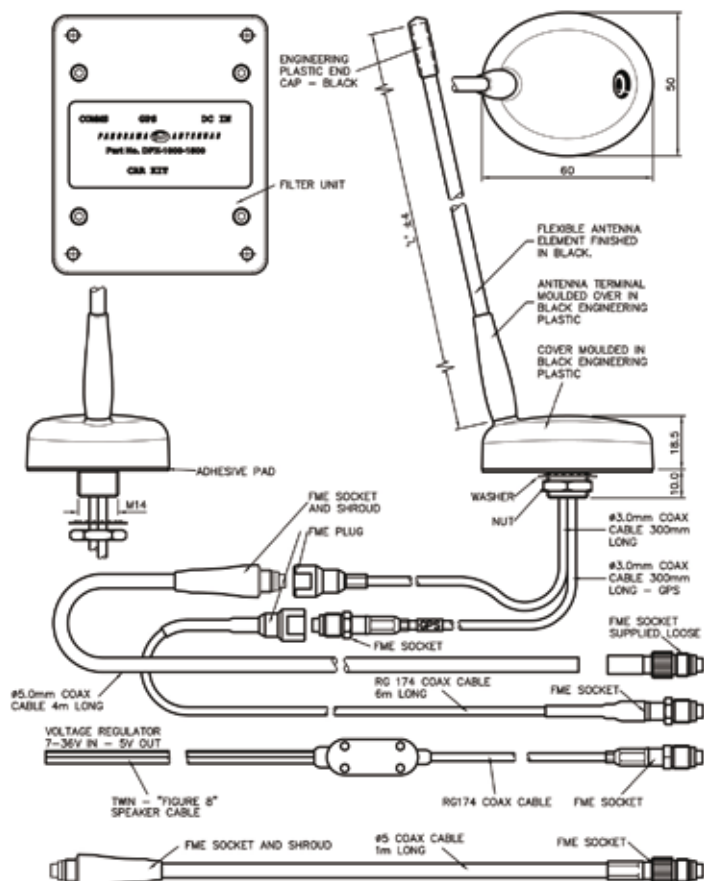
This antenna system is required for hand portable car kit use, where a common antenna connection is supplied.

The GPSK antenna range is a dual function, high performance TETRA antenna with an active GPS element.

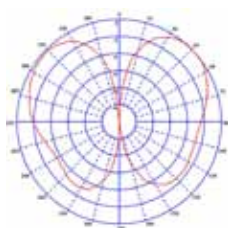
The GPSK range covers frequencies from 300MHz to 470Mhz, depending on the equipment requirements. With the ability to mount on a roof up to 6mm thick using only a single 15mm hole.

The dual functionality of the Panorama GPSK range makes the antenna a popular choice for police, buses, taxi's and other public service and utility vehicles.

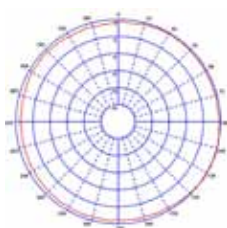
Technical Drawing



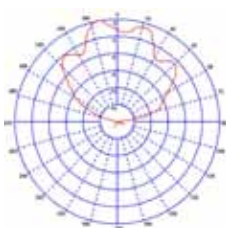
E-Plane (390MHz)



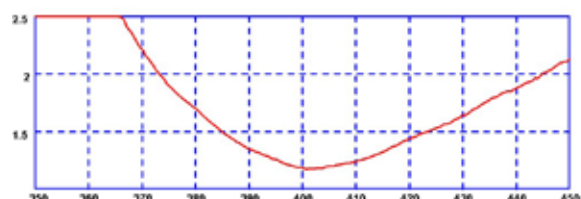
H-Plane (390MHz)



GPS



Typical VSWR*



*measured on a 1m x 1m groundplane

Part No.		GPSK-R1-MOT-CK	GPSK-R2-MOT-CK	GPSK-TET-MOT-CK	GPSK-S4-MOT-CK
Electrical Data					
Frequency Range (MHz)		300-334	350-370	380-430	450-470
Operational Band		R1	R2	TET	S4
Gain: Isotropic		2dBi	2dBi	2dBi	2dBi
Compared to ¼ wave		0dB	0dB	0dB	0dB
Polarisation		Vertical	Vertical	Vertical	Vertical
Pattern		Omni-directional	Omni-directional	Omni-directional	Omni-directional
Impedance		50Ω	50Ω	50Ω	50Ω
Max Input Power (W)		50	50	50	50
GPS Data					
Frequency Range (MHz)		1575	1575	1575	1575
VSWR		<1.5:1 ± 4MHz	<1.5:1 ± 4MHz	<1.5:1 ± 4MHz	<1.5:1 ± 4MHz
Gain: LNA		26dB	26dB	26dB	26dB
Polarisation		Right Hand Circular	Right Hand Circular	Right Hand Circular	Right Hand Circular
Operating Voltage		3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)	3 - 7V DC (fed via coax)
Current		Typical 14mA	Typical 14mA	Typical 14mA	Typical 14mA
Mechanical Data					
Dimensions (mm)	Whip Length	201	179	163	137
	Base Height	18.5	18.5	18.5	18.5
	Base Length	60	60	60	60
	Base Width	50	50	50	50
Operating Temp (°C)		-40° / +80°C	-40° / +80°C	-40° / +80°C	-40° / +80°C
Material		Engineering plastic	Engineering plastic	Engineering plastic	Engineering plastic
Colour		Black	Black	Black	Black
Mounting Data					
Fixing		Panel mount	Panel mount	Panel mount	Panel mount
Hole Size (mm)		15	15	15	15
Cable Data					
GPS Cable	Type	RG174	RG174	RG174	RG174
	Length (m)	6	6	6	6
	Termination	FME Socket	FME Socket	FME Socket	FME Socket
Comms Cable	Type	CS23	CS23	CS23	CS23
	Length (m)	5	5	5	5
	Termination	Bare end with loose FME	Bare end with loose FME	Bare end with loose FME	Bare end with loose FME
Radio Cable	Length (m)	1	1	1	1
	Termination	FME Socket	FME Socket	FME Socket	FME Socket
Voltage Regulator (part No. VR5-F)	Length (m)	1	1	1	1
	More Information	See page 68	See page 68	See page 68	See page 68