



**AAG-B    ACG-B    ACGS-B    ACEG-B    APCNG-B    ADEQ-B**

Non Hinged Type

Multiband	
AMPS	805-894 MHz
GSM 900	890-960 MHz
GSM 1800	1710-1880 MHz
PCS	1850-1990 MHz
3G UMTS	1900-2170 MHz



Type	AAGH-B	ACGH-B	ACGSH-B	ACEGH-B	APCNGH-B	ADEQH-B	AC3QH-B
Frequency range (MHz)	760-900	825-960	825-960	870-960	1710-1990	900 & 1800	Multiband
VSWR	Tx ≤ 1.5:1 Rx ≤ 2:1						
Gain:Isotropic	5dBi	5dBi	5dBi	7dBi	5dBi	2dBi 1800MHz & 900MHz	2dBi
Compared with ¼ wave	3dB	3dB	3dB	5dB	3dB	0dB 1800MHz & 900MHz	0dB
Height of whip (mm)	340	320	320	500	158	95	50
Hinged	✓	✓	✓	✓	✓	✓	✓

Type	CD800	CD900
Frequency range (MHz)	800-900	870-960
VSWR	Tx $\leq$ 1.5:1 Rx $\leq$ 2:1	
Gain: Isotropic	5dBi	5dBi
Compared with $\frac{1}{4}$ wave	3dB	3dB
Height (mounted) (mm)	210	190
Cable (m)	3	3



ground plane independent

CD800 / CD900



Base Type	EM-5	M8	M8A	MBM-5F
Hole size (Fit from outside) (mm)	16	19	19	—
Hole size (Fit from inside) (mm)	12	12	12	—
Overall diameter (mm)	28	28	28	45x38
Height (mounted) (mm)	15	15	15	23
Panel thickness (mm)	0-4	0-4	4-6	0-6
Detachable cable	✓	✗	✗	✗
Cable (m)	5	5	5	5



Multiband	
AMPS	805-894 MHz
GSM 900	890-960 MHz
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Type	MD821	MD920	MD926	MAR2110-2F	MAR-C3G-2F	MDDEQ	MDC3G
Frequency range (MHz)	760-900	825-960	870-960	1900-2170	Multiband	900 & 1800	Multiband
VSWR	Tx ≤ 1.5:1, Rx ≤ 2:1						
Gain: isotropic	5dBi	5dBi	7dBi	5dBi	2dBi	2dBi	2dBi
Compared with ¼ wave	3dB	3dB	5dB	3dB	0dB	0dB	0dB
Hinged	x	x	x	x	x	x	x
Height of whip (mm)	340	300	500	125	50	213	50
Height of base (mm)	38	38	38	24	24	38	38
Diameter (mm)	72	72	72	34	34	72	72
Detachable cable	✓	✓	✓	✓	✓	✓	✓

Type	KF-DE-BC
Frequency range (MHz)	900 + 1800 + AM / FM
VSWR	≤ 2:1
Gain: Isotropic	2dBi
Compared with ¼ wave	0dB
Length (mm)	460
Cable (m)	Various
Connector Fitted	Various



TAP-3F / TDE-3F



KF-DE-BC



EFDE3G / EFAP



THDE3G



TBC3G



\* ground plane independent

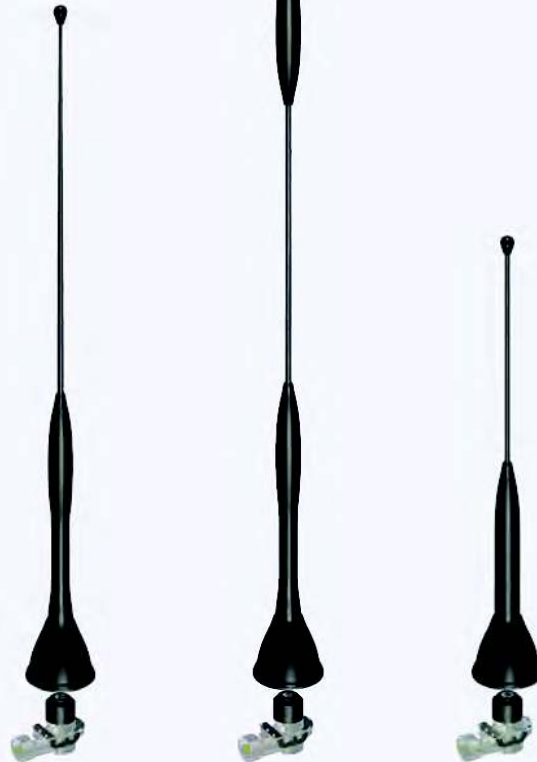
Type	TAP-3F	TDE-3F	TBC3G	THDE3G	EFDE3G	EFAP
Frequency range (MHz)	800 + 1900	900 + 1800	800 + 900 + 1800 + 3G-UMTS	900 + 1800 + 3G-UMTS	900 + 1800 + 3G-UMTS	800 + 1900
VSWR	Tx ≤ 1.5:1, Rx ≤ 2:1					
Gain: Isotropic	2dBi	2dBi	2dBi	2dBi	2dBi	2dBi
Compared with ¼ wave	0dB	0dB	0dB	0dB	0dB	0dB
Length (mm)	100	100	54	120	130	130
Cable (m) / Type	3, 3.5mm low loss		3m, RG174		3, 3.5mm low loss	
Connector fitted	FME (other connector types available)					

<b>Type</b>	<b>ODP-9-18-3G-05SP</b>
Frequency range (MHz)	900+1800 + 3G UMTS
VSWR	Tx $\leq 1.5:1$ , Rx $\leq 2:1$
Gain: Isotropic	2dBi
Compared with ¼ wave	0dB
Height (mounted) (mm)	150
Cable (m)	0.5
Termination	SMA plug



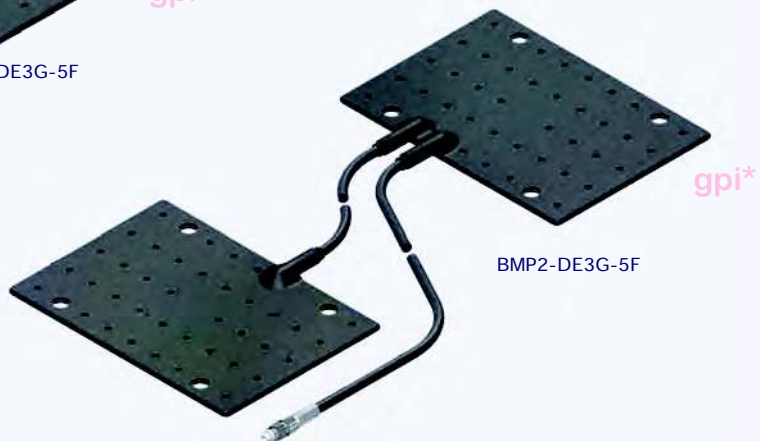
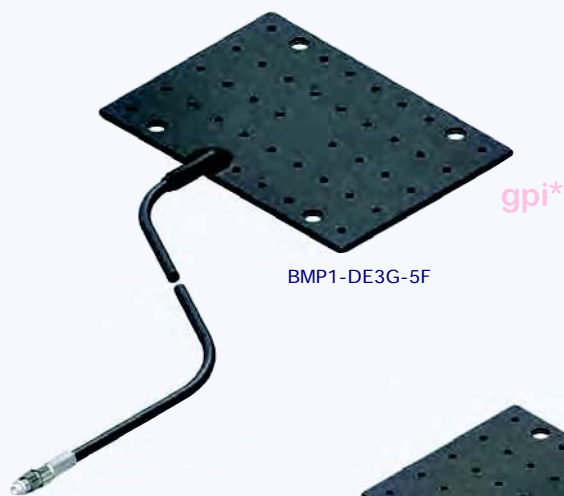
ODP-9-18-3G-05SP

Multiband	
AMPS	805-894 MHz
GSM 900	890-960 MHz
GSM 1800	1710-1880 MHz
PCS	1850-1990 MHz
3G UMTS	1900-2170 MHz



Type	EB-C3G EBM-C3G	EB923 EBM923	EB926 EBM926	EB1822 EBM1822
Frequency range (MHz)	multiband	870-960	870-960	1710 - 1880
VSWR	Tx $\leq 1.5:1$ , Rx $\leq 2:1$			
Gain: Isotropic	2dBi, All bands	5dBi	7dBi	3dBi
Compared with ¼ wave	0dB, All bands	3dB	5dB	1dB
Height of whip (mm)	50	290	500	185
Panel thickness (mm)	0-4	0-4	0-4	0-4
Hole size (mm)	EB 16 (Fit from outside) / 12 (Fit from inside) EBM 19 (Fit from outside) / 12 (Fit from inside)			
Cable (m)	EBM 5m EB - Various cable configurations available			

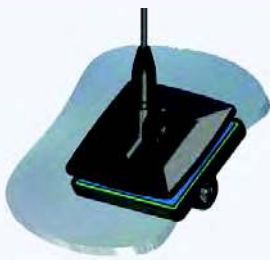
Type	BS800	BS900
Frequency range (MHz)	801-896	890-960
VSWR	Tx ≤ 1.5:1, Rx ≤ 2 :1	
Gain: Isotropic	5dBi	5dBi
Compared with ¼ wave	3dB	3dB
Height (mounted) (mm)	340	330
Cable	x	x
Termination	N socket	N socket



\* ground plane independent

Type	BMP1-DE3G-5F	BMP2-DE3G-5F
Element Dimensions (mm)	140 x 100 x 4.5	2 x 140 x 100 x 4.5
Operational Bands	GSM 900, GSM 1800, GSM 1900, 3G-UMTS	
Frequency range (MHz)	890 - 960 1710 - 1880 1850 - 1990 1900 - 2170	
Gain: isotropic	2dBi	2dBi
Compared with 1/4 wave	0dB	0dB
Impedance	50 Ohms	50 Ohms
Cable length (m)	5	5
Cable length between elements (m)	—	2.7
Connector	FME	FME
V.S.W.R	Tx ≤ 1.5:1	Rx ≤ 2:1

Type	HM921
Frequency range (MHz)	870-960
VSWR	Tx ≤ 1.5:1 Rx ≤ 2:1
Gain: isotropic	5dBi
Compared with ¼ wave	3dB
Height (mounted) (mm)	190
Cable	5



\* ground plane independent



Type	GTAE	GAP	GAPQ	G823	G926
Frequency range (MHz)	800 & 1800	800 & 1900	800 & 1900	805-890	870-960
VSWR	Tx ≤ 1.5:1, Rx ≤ 2:1				
Gain: Isotropic	2dBi, 800MHz 4dBi, 1800MHz	5dBi, 800MHz 2dBi, 1900MHz	2dBi	5dBi	7dBi
Compared with ¼ wave	0dB, 800MHz 2dB, 1800MHz	3dB, 800MHz 0dB, 1800MHz	0dB	3dB	5dB
Height of whip (mm)	164	320	100	320	500
Detachable cable	✓	✓	✓	✓	✓
Cable (m)	Various cable configurations available				

Type	LP-DE3G	LPL-DE
Frequency range (MHz)	900 + 1800 + 3G-UMTS	900 + 1800
VSWR	≤ 2:1	≤ 2:1
Gain: Isotropic	2dBi	2dBi
Compared with ¼ wave	0dB	0dB
Height (mounted) (mm)	50	35
Overall diameter (mm)	102	104
Cable (m)	0.5	0.3
Termination	FME-Plug	FME-Plug

tri-band



LP-DE3G

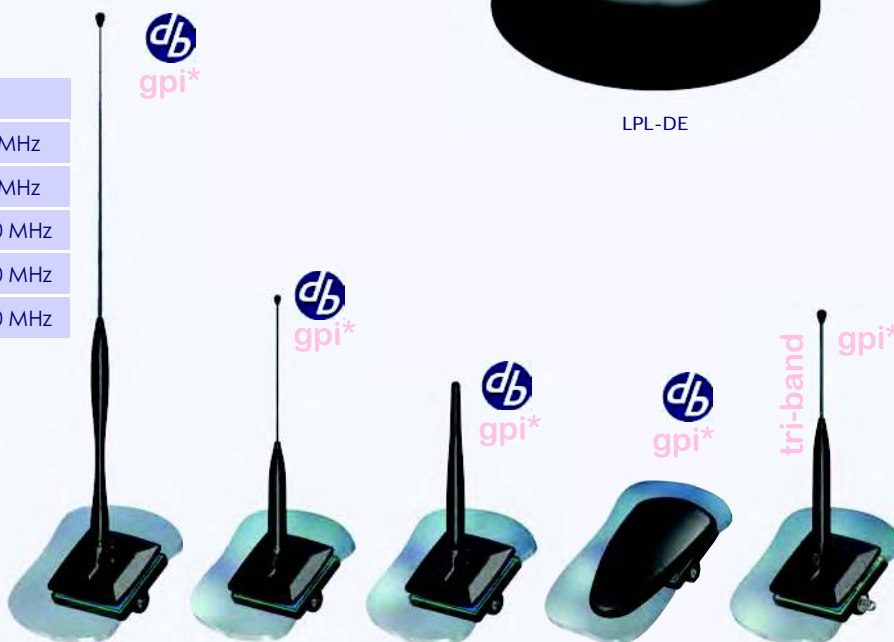
low profile gpi\*



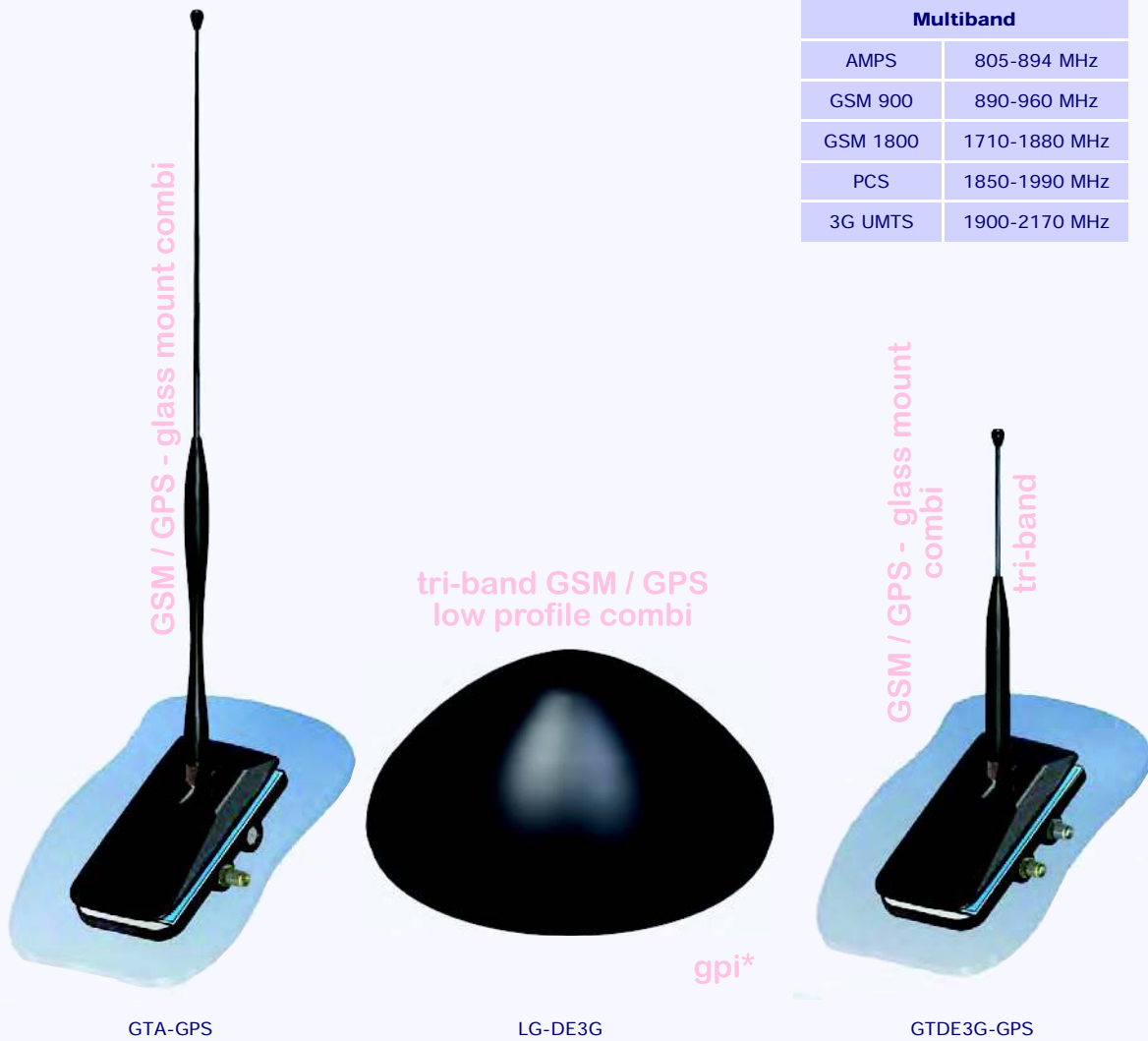
LPL-DE

Multiband	
AMPS	805-894 MHz
GSM 900	890-960 MHz
GSM 1800	1710-1880 MHz
PCS	1850-1990 MHz
3G UMTS	1900-2170 MHz

\* ground plane independent



Type	GDE	GTDE	GDEQ	GWDE	GTDE3G
Frequency range (MHz)	900 & 1800	900 & 1800	900 & 1800	900 & 1800	multiband
VSWR	Tx ≤ 1.5:1, Rx ≤ 2:1				
Gain: Isotropic	5dBi, 900MHz 2dBi, 1800MHz	2dBi, 900MHz 4dBi, 1800MHz	2dBi, 900MHz 2dBi, 1800MHz	2dBi, 900MHz 2dBi, 1800MHz	2dBi, 900MHz 4dBi, 1800MHz 4dBi, 3G UMTS
Compared with ¼ wave	3dB, 900MHz 0dB, 1800MHz	0dB, 900MHz 2dB, 1800MHz	0dB, 900MHz 0dB, 1800MHz	0dB, 900MHz 0dB, 1800MHz	0dB, 900MHz 2dB, 1800MHz 2dB, 3G UMTS
Height of whip (mm)	316	164	100	4	164
Detachable cable	✓	✓	✓	✓	✓
Cable (m)	Various cable configurations available				

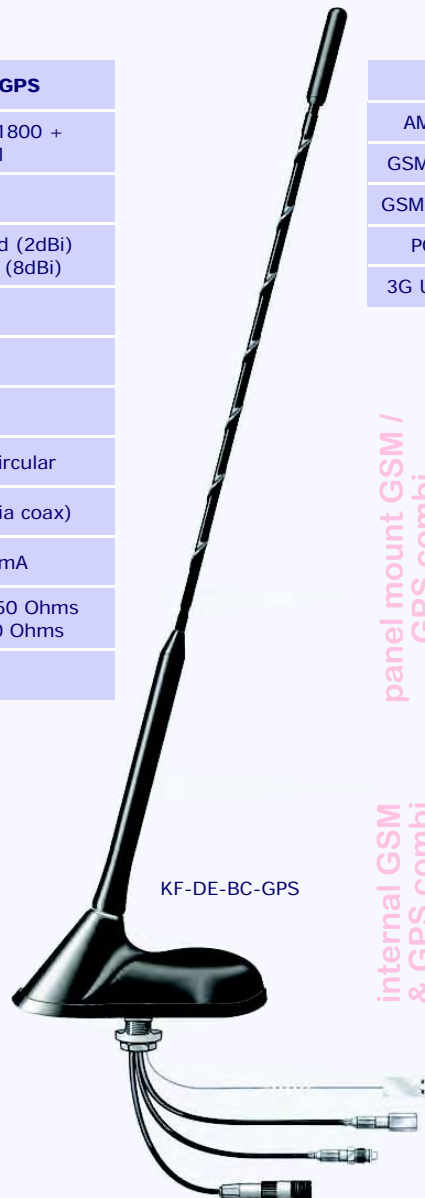


\* ground plane independent

Type	GTA-GPS	LG-DE3G	GTDE3G-GPS
Frequency range	GPS +800 MHz	GPS +900 & 1800 MHz + 3G UMTS	GPS +900 & 1800 MHz + 3G UMTS
Gain (LNA)		<b>Standard</b> 26dB <b>Type R</b> 13dB	
Coaxial cable (GPS)	Various	300mm length, 3mm o.d fitted with FME Socket (female)	Various
Polarisation (GPS)		Right Hand Circular	
Operating Voltage (GPS)		3 - 7V DC (fed via coax)	
Current		Typical 14mA	
Impedance		50 Ohms	
VSWR		<2.0:1	
Gain (auxiliary whip)	3dBd (5dBi)	0dBd (2dBi)	2dBi 900MHz 4dBi 1800MHz 4dBi UMTS
Coaxial cable	Various	300mm length, 3mm o.d fitted with FME plug (male)	Various
Height (mm)	320	50	164

Type	KF-DE-BC-GPS
Frequency range (MHz)	GPS + 900 & 1800 + AM / FM
VSWR	< 2.0:1
Gain	900+1800 0dBd (2dBi) AM / FM 6dBd (8dBi)
Coaxial cable (auxiliary whip)	Various
Gain (LNA)	26dB
Coaxial cable(GPS)	Various
Polarisation (GPS)	Right Hand Circular
Operating Voltage (GPS)	3-7V DC (fed via coax)
Current	Typical 14mA
Impedance	900/1800 GPS 50 Ohms AM/FM 75-150 Ohms
Height (mm)	460

Multiband	
AMPS	805-894 MHz
GSM 900	890-960 MHz
GSM 1800	1710-1880 MHz
PCS	1850-1990 MHz
3G UMTS	1900-2170 MHz



Type	GPSK-C3G	GPSFIN	GPSC-DE
Frequency Range (MHz)	GPS + 800, 900, 1800 1900 + 3G UMTS	GPS + 800, 1900, 900, 1800 + 3G UMTS	GPS + 900 & 1800
VSWR	< 2.0:1		
Gain (auxiliary whip)	0dBd (2dBi)		
Coaxial cable (auxiliary whip)	300mm length, 3mm o.d fitted with FME plug (male)		3m FME socket
Gain (LNA)	<b>Standard</b> 26dB <b>Type R</b> 13dB		
Coaxial cable	300mm length, 3mm o.d fitted with FME Socket (female)		3m SMA plug
Polarisation	Right Hand Circular		
Operating Voltage	3 - 7V DC (fed via coax)		
Current	Typical 14mA		
Impedance	50 Ohms		
Height (mm)	18+50	53	15