













• SATELLITE MULTISTACKER • AMPLIFIERS • ACTIVE TAPS • PASSIVE TAPS • SPLITTERS • DIPLEXER • TERMINATOF

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SATELLITE MULTISTACKER

The Kingray KMS-F1 Satellite Multistacker is designed specifically for use with the Foxtel Satellite Platform. The satellite multistacker is a standalone device that can be installed directly after a twin or quad universal vertical - horizontal LNBF. It is typically installed before the first distribution point in the SMATV system. It restacks the vertical polarity transponder services onto a horizontal polarity, allowing the distribution of satellite services via a single cable.

- The Multistacker has 4 input ports which cater for low and high band signals
- Low band via DC Voltage
- High band via DC and 22 KHz tone

Note: It is important to have the satellite RF feeds connected between the LNBF and SMS before the unit is powered up.

INPUT PORTS FROM LEFT TO RIGHT

Port 4 HH	18 volts plus 22 KHz	(Future satellite)	
Port 3 VH	13 volts plus 22 KHz	(Future satellite)	
Port 2 HL	18 volts	(Current Foxtel H pol services)	
Port 1 VL	13 volts	(Current Foxtel V pol services)	

The Multistacker has 2 ports on the bottom

- Output Port: Stacked satellite RF output port with the ability to remotely power the multistacker
- DC/PWR Port: Local powering via the supplied DC power pack

Note: When using the local powering option, the installation of the power block at the RF output is required to stop unwanted power entering the SMS

Local powering option can be extended using RG6 coaxial cable, the maximum run of cable depends on the voltage source used. 12 Volt is 15 metres & 18 Volt is 50 metres.

When line powering via the RF output with the use of a power injector & FTA – Satellite diplexer in line, the maximum cable runs are reduced to the following. 12 Volt is 10 metres & 18 Volt is 40 metres.

PSK124F – 12V 2A PSU PSK183F – 18V 3.33A PSU

Part No. KMS-F1					
PARAMETERS	SPECIFICATIONS				
Input/Output Frequency Range	950-2350 MHz				
Input/Outputs	4 x Inputs / 1 x Output				
Power Range	65-85dBµV Input / 80-85dBµV Output				
Input/Output Return Loss	>10dB				
Supply Voltage	12V or 18V DC				
Mary Querrat Occasionation	560mA @ 12V DC				
Max. Current Consumption	370mA @ 18V DC				
Dc Current Consumption (Excluding Lnbs)	0.75A @ 12V Max (10W)				
Operating Temperature	-20°C ~ +60°C				
POWERING OPTIONS					
Option 1	Locally via a PSK124F				
Option 2	Remotely via the output				
PHYSICAL PARAMETERS					
Dimensions (mm)	127 x 130 x 38				
Weight	415 grams				



- FTA services are diplexed in after the Multistacker
- Suitable for new and existing SMATV installations



STACKER DIP SWITCH AND STB STATE SETTINGS

SWITCH NUMBER	1	2	3	4	5	STB SETTING
NAT	OFF	OFF	OFF	OFF	OFF	NAT 01
NSW + ACT	ON	OFF	OFF	OFF	OFF	NSW 02
VIC	OFF	ON	OFF	OFF	OFF	VIC 03
QLD	ON	ON	OFF	OFF	OFF	QLD 04
SA	OFF	OFF	ON	OFF	OFF	SA 05
WA	ON	OFF	ON	OFF	OFF	WA 06
TAS	OFF	ON	ON	OFF	OFF	TAS 07
NT	ON	ON	ON	OFF	OFF	NT 08

Due to the design of the multistacker there is no headend set up procedure. The Foxtel Network Information Table (NIT) automatically updates the SMS frequencies to tune to in the same way a FOXTEL STB is updated in the field. The installation method for a large variety of buildings has now become more simplified, such as;

- Domestic homes that
 are difficult to re-cable
- MDU's listed as "nonhomes passed" which have been difficult to cable due to cabling access
- MDU lite buildings that are H polarity only

cabled

- Twin backbone no PVR buildings with single laterals
- Single wired commercial buildings
- Single wired residential estates including RF or optical distribution

SUPER BROADBAND AMPLIFIER 47-2400MHZ





The Kingray DSB38F is a high gain Free-to-Air and Satellite Distribution Amplifier for use in SMATV applications. It features a combined single input and single output connector, with adjustable gain and equalisation controls, as well as input attenuation, therefore making it an ideal distribution amplifier for a multistacker installation.

Part No. DSB38F					
PARAMETERS		SPECIFICATIONS			
Frequency Range		47-862 MHz, 950-2400 MHz			
Input/Outputs		1 x Input / 1 x Output			
Maximum Gain		36dB (FTA), 41dB (Satellite)			
Test Port		-30dB			
Return Loss		>10dB			
Gain Control		0 to 10dB (FTA and SAT)			
Equalisation		0 to 10dB (FTA and SAT)			
Attenuation		-10dB input switches (FTA and SAT)			
Maximum	FTA (IMB₃ = 60dB DIN450004B)	120dBµV			
Output Level	Satellite (IMB₃ = 35dB EN50083-3)	122dBµV			
Supply Voltage		12V DC or 18V DC			
Maximum Current Cons	umption	560mA @ 12V DC 370mA @ 18V DC			
POWERING OPTIONS					
Option 1		Locally via a PSK124F or PSK18M			
Option 2		Remotely via the output			
PHYSICAL PARAMETE	RS				
Dimensions (mm)		183 x 150 x 52			
Weight		880 grams			

Note: The recommended maximum output when used in a multistacker system is approximately 109dB.



SINGLE INPUT SATELLITE DISTRIBUTION AMPLIFIERS

The SAT25S and SAT40S are single input satellite distribution amplifiers and are designed specifically for the new Foxtel single coax cable multistacker satellite distribution system. The SAT25S has a maximum gain of 25dB and the SAT40S has a maximum gain of 40dB.

They feature high output with adjustable gain and equalisation controls. The amplifiers are designed to be powered by an 18V DC power supply, such as the Kingray PSK18S. The amplifier can be either locally or remotely powered.

Part No.	SAT40S	SAT25S			
PARAMETERS	SPECIFICATIO	NS	NOTES		
Frequency Range	950-3000 MHz	950-3000 MHz			
Gain	40dB (Nominal)	25dB (Nominal)	950-3000 MHz		
Flatness	± 2dB	± 2dB	950-3000 MHz		
Noise Figure	< 10dB	< 10dB	950-3000 MHz		
Return Loss	> 10dB	> 10dB	950-3000 MHz		
Gain Control Range	0-20dB 0-10dB		950-3000 MHz		
Equalisation Range	15dB	15dB	950-2400 MHz		
Output Level	122dBµV	112dBµV	- 30dB IMB3		
Supply Voltage	18V DC	18V WDC			
Current Consumption	260-410 mA* 110-260 mA*				
POWERING FEATURES					
Option 1	Locally - PSK18	S plug pack			
Option 2	Remotely - PSK18F to the output				
LNB	Via switches				
Operating Temperature	-10°C TO 50°C				
Dimensions (mm)	195 X 55 X 35				
Weight	250 grams				
* Depending on current drain by LNBs					

All values are typical unless otherwise specified.



Part No: SAT40S FOXTEL IPL No. F30949

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8, 16, 24 AND 32 WAY ACTIVE TAPS 47-2400MHZ

The Kingray Active Taps are specifically designed for the distribution of terrestrial and satellite signals in a Multistacker installation. They feature high output with adjustable gain and equalisation control.

Part No: KAT24F FOXTEL IPL No. F31095



Part No: KAT16F FOXTEL IPL No. F31010





FOXTEL IPL No. F30976



Part No.			KAT8F KAT16F KAT24F KAT32				
PARAMETERS			SPECIFICATIONS				
Frequency Range	Terre	strial (TER)	47 ~ 862 MHz				
	Sate	ellite (SAT)		950 ~ 240	0 MHz		
Input / Output	TE	R+SAT	1 x Input / 8 x Taps	1 x Input / 16 x Taps	1 x Input / 24 x Taps	1 x Input / 32 x Taps	
DC_IN / GND Post				1 / -	1		
	TER	47 MHz		10d	3		
Insertion Gain		862 MHz		14d	3		
		SAT	14	dB	15dB	14dB	
		TER		14d	3		
Gaill ADJ		SAT	14dB				
Slope ADJ		SAT	11dB				
Out-band Rejection	SA	JT / TER	37dB				
Fixed Slope			4dB				
		TER	30dB				
		SAT		35dl	3		
Return Loss	SA	JT / TER		12df	3		
Max. Output	(60c @ EN	TER IBuV IMA3 I60728-5)	96dBµV				
Power Level	(35c @ EN	SAT IBuV IMA3 I60728-3)	97dBµV 96dBµV			lΒμV	
DC_IN			2A/12V Optional External PSU				
DC from / to Input			DIP SW CTRL and 2A max.				
Power Source				12VDC/2A @ PSU	J or Input Port		
Power Consumption			170mA Max.@ 12VDC / 270mA Max.@ 12VDC / 350mA Max.@ 12VDC / 360mA Max.@ 12VDC / 120mA Max.@ 18VDC 180mA Max.@ 18VDC 230mA Max.@ 18VDC 240mA Max.@ 18VDC				

F-TYPE PASSIVE TAPS





KT215F FOXTEL IPL No. F31056







The Kingray passive taps are designed to cover the Terrestrial and Satellite Bands from 5 to 2400MHz.

Note: Power Pass on through port only.

Part No.		KT212F	KT215F	KT412F	KT415F	KT420F	KT816F
PARAMETERS			SPECIFIC	CATIONS			
Frequency Range			5-240	0MHz			
Ports		2	2		4		8
	40-1000 MHz	2.0	2.0	4.0	3.0	2.2	4.0
Insertion Loss (dB)	1000-1750 MHz	2.5	2.5	4.5	3.5	2.5	4.5
	1750-2400 MHz	3.0	3.0	5.0	4.5	3.5	5.0
40-1000 MHz		>30					
Mutual Isolation (dB)	1000-1750 MHz	>26	>28		>28		>35
	1750-2400 MHz	>25					
Return Loss (dB)	40-2400 MHz	>12					
Tap Loss (dB)	40-2400 MHz	12	15	12	15	20	16







FOXTEL IPL No. F30956

KT420F



FOXTEL IPL No. F30969

KT816F

F-TYPE SPLITTERS 5-2400MHZ

These splitters have high isolation, are power pass on all ports and have greater than 100dB RF shielding.

The KSP2FRPP & the KSP4FRPP have been specifically designed for use in a multistacker system. These splitters pass power from the input port to the output ports, which allow the active taps to be power remotely. The other splitters pass power in the traditional configuration, which is from the output ports to the input port.

Part No.		KSP2F/ KSP2FRPP	KSP3F	KSP4F/ KSP4FRPP	KSP6F/ KSP8F
PARAMETERS			SPECI	FICATIONS	
	5-40 MHz	4.0	7.5	8.0	11.0
Insertion Loss (dB)	40-1000 MHz	4.5	8.0	8.5	12.0
	1000-1750 MHz	5.0	9.5	10.0	13.0
	1750-2400 MHz	5.5	10.0	10.5	15.0
Return Loss (dB)	5-2400 MHz			>10	



POWER SUPPLIES WITH LINE INJECTORS

Power supply to be used with Kingray TV and SAT Accessories.

- **PSK124F** 12V DC 2A power supply (includes power cord)
- **PSK183F** 18V DC 3.33A Power Supply (power cord not included)
- PSK18M 18V DC 500mA Power Supply
- KB03 Mounting Bracket for PSK124F
 & PSK183F

PSK18M FOXTEL IPL No. F31096



PSK124F FOXTEL IPL No. F30966

PIK2400

KDPTSF

FOXTEL IPL No. F31017





60V DC 2A F-TYPE POWER INJECTOR

- 60V DC 2A max F-Type Power Injector
- Operates at the Frequency 5-2400MHz
- For remotely powering active taps or a multistacker, in conjunction with a suitable power supply.



The Kingray KDPTSF diplexer is designed for peak performance across the Terrestrial and Satellite Bands up to 2400MHz. This A Class diplexer is compact in design with excellent screening characteristics.

75 OHM F-TERMINATOR DC BLOCKING

The KFTERM01 is a 1K V DC blocking 75 ohm Terminator.

FREQUENCY RANGE (MHz)	INSERTION LOSS (dB)	ISOLATION (dB)	RETURN LOSS (dB)
5-862	≤1.0	≥30	≥12
950-2400	≤1.0	≥40	≥12

IN-LINE DC BLOCK F MALE TO F FEMALE

The KDBLOCK is an in-line DC block with a voltage rating at 100V DC max.

FREQUENCY RANGE (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
5-1000	≤0.2	≥12
1000-2400	≤0.5	≥12











KFTERM01 FOXTEL IPL No. F30999

MULTISTACKER DISTRIBUTION EXAMPLE USING ACTIVE TAPS

The below diagram is an example of a multistacker distribution system using active taps per floor. The RF signal is then distributed directly to each apartment where a splitter is then used to feed the RF signal to the wall outlets.



MULTISTACKER DISTRIBUTION EXAMPLE USING AMPLIFIERS

The below diagram is an example of a multistacker distribution system using super broadband amplifiers per floor. The RF signal is then feed into a splitter & distributed directly to each apartment where either a splitter or tap is then used to feed the RF signal to the wall outlets.



NOTES



















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