

Feed Systems

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Feed Systems

General Quality Characteristics

The electronic, mechanical and functional features of Kathrein compact feed systems (LNB) fully comply with highest quality standards.

Available from Kathrein are:

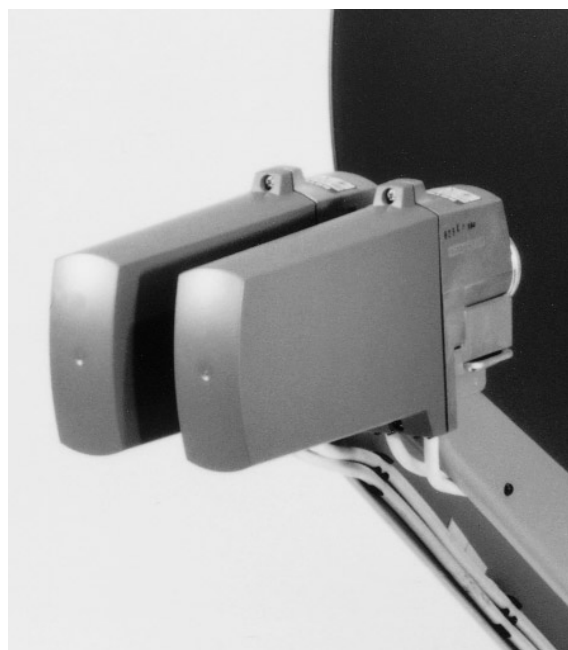
- Universal single feed system for individual antenna systems
- Universal twin feed system for two-subscriber antenna systems
- Universal quatro feed systems for community antenna systems
- All Kathrein feed systems are designed for the frequency range from 10.70 to 12.75 GHz and therefore cover all current reception capabilities and conditions.



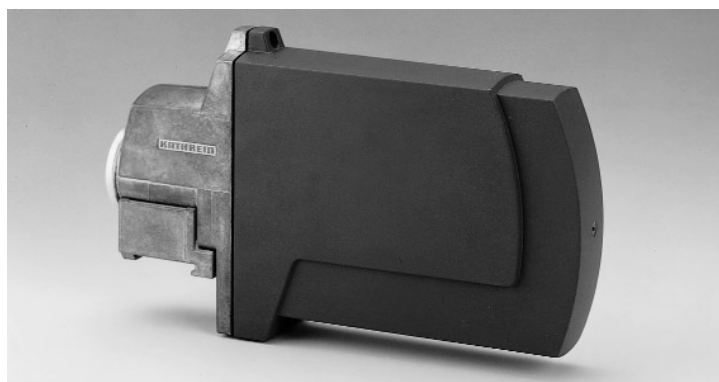
- A former Kathrein LNB subjected to a lightning current test with 100 kA at the Bundeswehr University in Neubiberg near Munich. The excellent results obtained from this test also apply to Kathrein's new universal feed systems.



- Low noise figure and high figures of merit guarantee excellent reception quality even with small reflectors.



- Kathrein compact feed systems allow multifeed reception, which means that simultaneous reception of several satellites is possible with only one reflector.

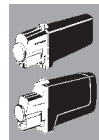


- All Kathrein feed systems are completely pre-assembled and weather protected.



- The quatro feed system UAS 484 has four outputs. The double exposure shows the interior of the feed system.



Universal Feed System



Universal single feed system 10.70–11.70 and 11.70–12.75 GHz

- For the reception of the satellites ASTRA, EUTELSAT/HOTBIRD, Telecom and TürkSat
- The feed system fulfils the ASTRA specifications for universal feed systems
- Universal feed system for individual systems with two polarisations and two frequency ranges (Low/high-band or analogue/digital)
- For linear polarisation
- Equipped with single LNB, switchable (one output)
- Polarisation switch-over with 14/18 V LNB supply voltage
- Frequency range switch-over from the receiver with 22 kHz signal
- Current supply via download
- Multifeed compatible thanks to compact construction
- Watertight housing, protective enclosure IP 54





Type		UAS 177
Order no.		268105
		 
Suitable for parabolic antennas		CAS 06, 60, 075, 75, 75/R, 09,90, 90/R, 120
Polarisation		Switchable: vert. (14 V), horiz. (18 V)
Input frequency	GHz	Switchable: 10.70–11.70 (Switch signal: 0 kHz) 11.70–12.75 (Switch signal: 22 kHz)
Feed system noise figure / 25°C	dB	0.9
LNB noise figure / 25 °C	dB	0.8
Gain	dB	> 50
Output frequency	MHz	950–1,950/1,100–2,150
Oscillator frequency (L.O.)	GHz	9.75/10.60
Phase noise (L.O.: 10.60 GHz)	dBc	1 kHz: -50, 10 kHz: -75, 100 kHz: -95
System figure of merit (G/T)	dB/K	See offset parabolic antennas
Polarisation decoupling	dB	> 23
Output / impedance	Ω	1 x F-connector/75
Supply voltage LNB	V	vert. 11.5–14 horiz. 16–19
Current drain LNB	mA	< 150
Dimensions	mm	250 x 45 x 125
Packing size	mm	300 x 70 x 180
Weight ca.	kg	1.40

Universal Twin Feed System

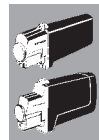
Universal twin feed system 10.70–11.70 and 11.70–12.75 GHz

- For reception of the satellites ASTRA, EUTELSAT/HOTBIRD, Telecom and Türksat
- The feed system fulfils the ASTRA specifications for universal feed systems
- Universal feed system for community antenna systems with two polarisations and two frequency ranges (Low/high-band or analogue /digital)
- For linear polarisation
- Equipped with twin LNB, switchable (2 outputs)
- For two subscribers without additional matrix
- Independent selection horiz./vert., low/high-band from each receiver
- Switch-over horiz./vert., low/high-band via the coaxial cable with 14/18 V and 22 kHz
- Current supply via download
- Multifeed compatible thanks to compact construction
- Watertight housing, protective enclosure IP 54



Type		UAS 272
Order no.		268119
		 
Suitable for parabolic antennas		CAS 06, 60, 075, 75, 75/R, 09,90, 90/R, 120
Polarisation		Switchable: vert. (14 V), horiz. (18 V)
Input frequency	GHz	Switchable: 10.70–11.70 (0 kHz) 11.70–12.75 (22 kHz)
Feed system noise figure / 25 °C	dB	0.9
LNB noise figure / 25 °C	dB	0.8
Gain	dB	> 50
Output frequency	MHz	950–1950/1100–2150
Oscillator frequency (L.O.)	GHz	9.75/10.60
Phase frequency (L.O.: 10.60 GHz)	dBc	1 kHz: -50, 10 kHz: -75, 100 kHz: -95
System figure of merit (G/T)	dB/K	See offset parabolic antennas
Polarisation decoupling	dB	23
Output / impedance	Ω	2 x F-Connector/75
Supply voltage LNB	V	vert. 11.5–14 horiz. 16–19
Current drain LNB	mA	< 250
Dimensions	mm	250 x 44 x 148
Packing size	mm	300 x 70 x 190
Weight ca.	kg	2.1



Universal Quatro Feed System



Universal quatro feed system 10.70–11.70 and 11.70–12.75 GHz

- For reception of the satellites ASTRA, EUTELSAT/HOTBIRD, Telecom and TürkSat
- The feed system fulfils the ASTRA specifications for universal feed systems
- Universal feed system for community antenna systems with two polarisations and two frequency ranges (Low/high-band or analogue/ digital)
- For linear polarisation
- Equipped with quatro LNB (four outputs)
- The supply voltage is delivered via download, and the remote power feeding is possible via any output
- Polarisation and frequency range are independent from the supply voltage
- Multifeed compatible thanks to compact construction
- Watertight housing, protective enclosure IP 54





Type		UAS 484
Order no.		268101
		 
Suitable for parabolic antennas		CAS 06, 60, 075, 75, 75/R, 09, 90, 90/R, 120
Polarisation		4 x (2 x horizontal, 2 x vertical)
Input frequency	GHz	10.70–11.70/11.70–12.75
Feed system noise figure / 25 °C	dB	1.1
LNB noise figure / 25 °C	dB	1.0
Gain	dB	> 50
Output frequency	MHz	950–1950/1 100–2 150
Oscillator frequency (L.O.)	GHz	9.75/10.60
Phase noise (L.O.: 10.60 GHz)	dBc	1 kHz: -50, 10 kHz: -75, 100 kHz: -95
System figure of merit (G/T)	dB/K	See offset parabolic antennas
Polarisation decoupling	dB	25
Output / impedance	Ω	4 x F-connector/75
Supply voltage LNB	V	+11.5–19
Current drain LNB	mA	< 250
Dimensions	mm	250 x 44 x 148
Packing size	mm	300 x 70 x 190
Weight ca.	kg	2.1

Universal Quatro Feed System, Switchable

Universal quatro feed system, switchable 10.70–11.70 and 11.70–12.75 GHz

- For reception of the satellites ASTRA, EUTELSAT/HOTBIRD, Telecom and TürkSat
- The feed system fulfils the ASTRA specifications for universal feed systems
- Universal feed system for community antenna systems with two polarisations and two frequency ranges (low-/high-band, analogue/digital)
- For linear polarisation
- Equipped with switchable quatro LNB (four outputs)
- Independent selection horiz./vert., low-/high-band from each receiver
- Switch-over horiz./vert., low-/high-band via coaxial cable with 14/18 V and 22 kHz
- For connection of four subscribers without additional matrix
- Extension to more than four subscribers is possible. Three F-DC blocking devices EMU 12 are required, in addition to the necessary matrices
- Power supply via download
- Multifeed compatible thanks to compact construction
- Watertight housing, protective enclosure IP 54

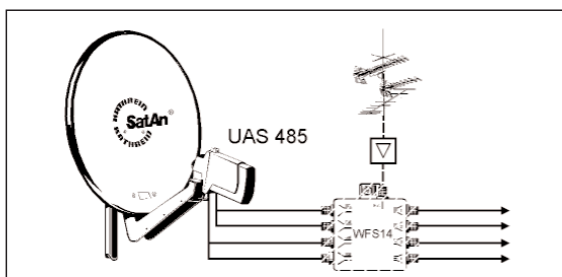


Type		UAS 485	
Order no.		268120	
		 	
Suitable for parabolic antennas		CAS 06, 60, 075, 75, 75/R, 09, 90, 90/R, 120	
Polarisation		Switchable: vertical (14 V)/horizontal (18 V)	
Input frequency	GHz	Switchable: 10.70–11.70 (0 kHz) 11.70–12.75 (22 kHz)	
Feed system noise figure/25 °C	dB	0.9	
LNB noise figure/25 °C	dB	0.8	
Gain	dB	> 50	
Output frequency	MHz	950–1950/1 100–2 150	
Oscillator frequency (L.O.)	GHz	9.75/10.60	
Phase noise (L.O.: 10.60 GHz)	dBc	1 kHz: -50, 10 kHz: -75, 100 kHz: -95	
System figure of merit (G/T)	dB/K	See offset parabolic antennas	
Polarisation decoupling	dB	23	
Output/impedance	Ω	4 x F-connector/75	
Supply voltage LNB Input Input	V	Switched mode operation: vert. 11.5–14 horiz.: 16–19	Operation with matrix: horiz./low: 16–19 all others: 0
Current drain LNB	mA	< 250	
Dimensions	mm	250 x 44 x 148	
Packing	mm	300 x 70 x 190	
Weight ca.	kg	2.1	

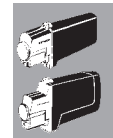
Feed-in diplexer, terrestrial and 4 x Sat

WFS 14 222291

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Universal Feed System



Converter/Range diplexer

- Extends analogue systems with broadband feed systems (e.g. UAS 474 or UAS 478) to allow reception of the digital frequency ranges (high-band).
- The complete system fulfils the „Universal-SMATV“ system demands in accordance with the ASTRA specifications
- Can be extended to several subscribers with the EXR 5xx (4 x Sat IF), EXR 9xx (8 x Sat IF) and UFO[®]micro single-cable matrix EXU 544
- Receiver adjustment:
 - Oscillator frequency 9.75 GHz
 - For lower frequency range 10.70–11.70 GHz
 - Oscillator setting 10.60 GHz
 - For higher frequency range 11.70–12.75 GHz
- For indoor installation



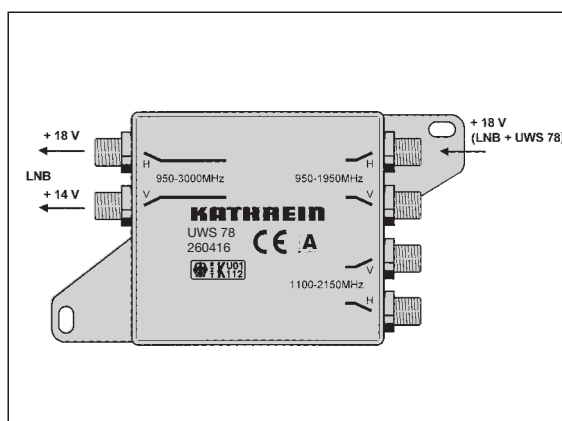
Type		UWS 78	
Order no.		260416	
Inputs	MHz	Horizontal	Vertical
		950–3000	950–3000
Outputs	MHz	950–1950 (analogue, low)	1100–2150 (digital, high)
Through loss	dB	5.5	8–2*)
Supply voltage	V	11.5–19	
Current drain	mA	150	
Connections		6 x F-connector	
Dimensions	mm	124 x 70 x 42	
Packing/Weight	pc/kg	1 (10)/0.32	

*) Slope: 1 100–2 150 MHz

Power supply for UWS 78 and feed system

- Power supply with + 18 V is effected via the hor. output of the lower (analogue) range. The supply voltage is fed to the LNB via the hor. input of the UWS 78.

The hor. input of the UWS 78 is fed with + 14 V which switches the LNB output to the hor. mode. The 14 V current cannot be charged.



4-way connection element

EMU 40 273283

- 4-way connection element for plugging together UWS 78 and the following switch-over matrix EXR 5xx, the Sat distribution amplifier VWS 551 or the UFO[®]micro single-cable matrix EXU 544
- For easy connection of two UFO[®]micro single-cable matrices EXU 544

