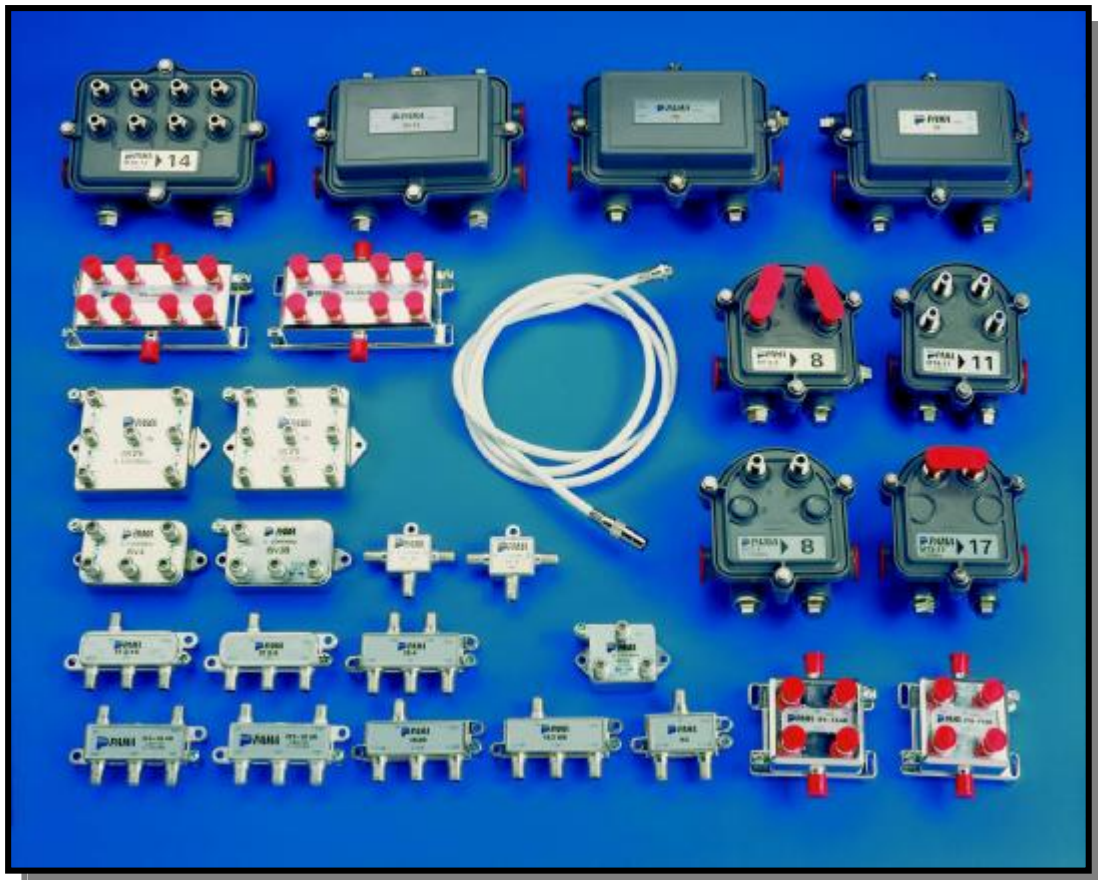




# PAMA PASSIVES 1GHz

## DROP PASSIVES WITH F CONNECTORS



# Vertical Splitters ISV Series

## FEATURES

- Vertical from two to eight ports
- Two-way system compatible
- Outdoor/Indoor Uses
- Housing: Zinc Diecast Tin Plated
- Solderback design
- Non-Corrosive ports
- Built-in Ground Block
- Non-Power Passing

## PARAMETERS

- Frequency range: 5-1000 MHz
- RFI: -130 dB
- IM2: -60/55 dBmV/dBmV
- Input blocking capacitor: yes 2 kV
- Temperature range: -40/+140 °C
- Impedance: 75Ω
- Ports: „F“



### Insertion Loss (dB) In – Out

Frequency (MHz)	Model						
	ISV2	ISV3UB		ISV3	ISV4	ISV6	ISV8
5-300	3.3	3.3	6.8	5.5	6.8	9.8	11.5
300-660	3.5	3.5	7.2	5.9	7.2	10.0	11.5
660-1000	3.7	3.7	7.5	6.0	7.5	10.8	12.5

### Isolation (dB) Out – Out

Frequency (MHz)	Model						
	ISV2	ISV3UB		ISV3	ISV4	ISV6	ISV8
5-300	25	25	25	25	25	26	26
300-660	25	25	25	25	25	26	26
660-1000	22	22	22	22	22	22	26

### Return Loss

Frequency (MHz)	Model						
	ISV2	ISV3UB		ISV3	ISV4	ISV6	ISV8
5-300	18	18	19	18	19	19	19
300-660	18	18	19	18	19	19	19
660-1000	18	18	18	18	18	18	19

Tolerance: Insertion Loss In – Out = ± 0.7 dB; Isolation = ± 2 dB; Return Loss = ± 2 dB.

# Horizontal Splitters IS Series

## FEATURES

- Two, three and four vertical ports
- Two-way system compatible
- Outdoor/Indoor Uses
- Housing: Zinc Diecast Tin Plated
- Solderback design
- Non-Corrosive ports
- Built-in Ground Block
- Non-Power Passing

## PARAMETERS

- Frequency range: 5-1000 MHz
- RFI: -130 dB
- IM2: -60/55 dBmV/dBmV
- Input blocking capacitor: yes 2 kV
- Temperature range: -40/+140 °C
- Impedance: 75Ω
- Ports: „F“



### Insertion Loss (dB) In – Out

Frequency (MHz)	Model				
	IS2	IS3UB		IS3	IS4
5-300	3.3	3.3	6.8	5.5	6.8
300-660	3.5	3.5	7.2	5.9	7.2
660-1000	3.7	3.7	7.5	6.0	7.5

### Isolation (dB) Out – Out

Frequency (MHz)	Model				
	IS2	IS3UB		IS3	IS4
5-300	23	23	25	23	25
300-660	23	23	25	23	25
660-1000	20	20	20	20	20

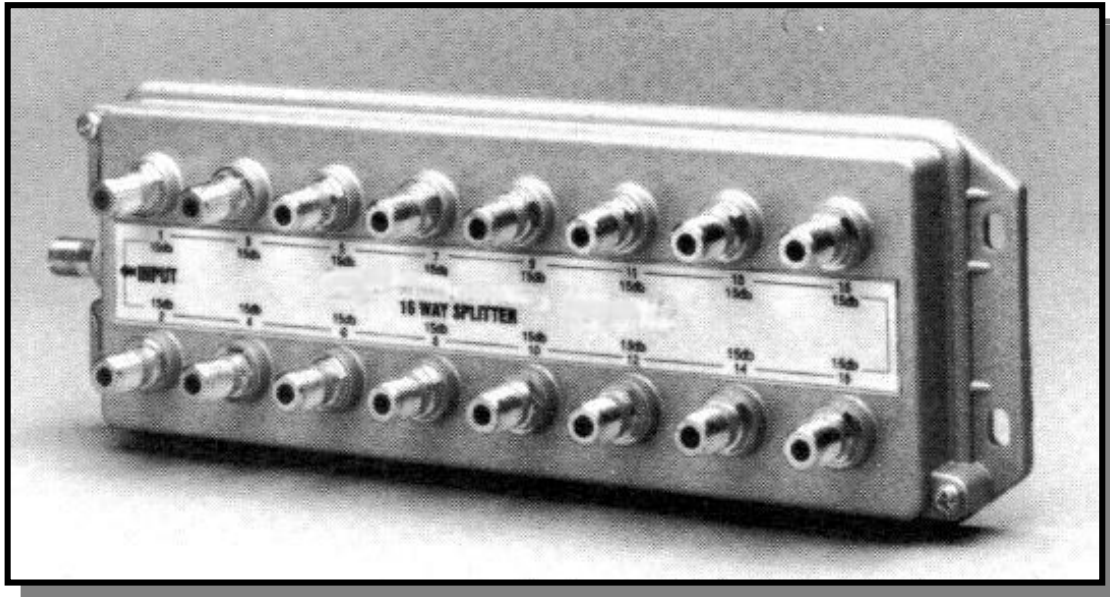
### Return Loss

Frequency (MHz)	Model				
	IS2	IS3UB		IS3	IS4
5-300	18	18	19	18	19
300-660	18	18	19	18	19
660-1000	18	18	18	18	18

Tolerance: Insertion Loss In – Out = ± 0.7 dB; Isolation = ± 2 dB; Return Loss = ± 2 dB.

## Model IS16 – 1 GHz – 16 Way Splitter

- Non Corrosive Aluminum alloy housing with acrylic paint finish
- Non Corrosive Brass „F“ Ports
- Two Grounding Blocks provided for grounding of each row of splits
- Connector ports are numbered for easy installation
- Input is side mounted
- RFI at –100 dB
- Indoor / Outdoor Use
- Flatness/Production Tolerance Insertion Loss:  $\pm 1.5$  dB



16 WAY SPLITTER – 1 GHz

Frequency Range	5 – 400 MHz	400 – 550 MHz	550 – 1000 MHz		
Insertion Loss Min.	14.5 dB	15.0 dB	15.5 dB		
Frequency Range	10 – 20 MHz	20 – 1000 MHz			
Return Loss Max.	18 dB	18 dB			
Frequency Range	10 – 30 MHz	30 – 450 MHz	450 – 550 MHz	550 – 600 MHz	650 – 1000 MHz
Isolation Max.	24 dB	28 dB	24 dB	22 dB	18 dB

## Directional Couplers IT1, ITV Series

### FEATURES

- Two-way system compatible
- Outdoor/Indoor Uses
- Housing: Zinc Diecast Tin Plated
- Solderback design
- Non-Corrosive ports
- Non-Power Passing

### PARAMETERS

- Frequency range: 5-1000 MHz
- RFI: -130 dB
- IM2: -60/55 dBmV/dBmV
- Input blocking capacitor: yes 2 kV
- Temperature range: -40/+140 °C
- Impedance: 75Ω
- Ports: „F“



#### Insertion Loss (dB)

Port	Frequency (MHz)	Model IT1-x ITV1-x							
		6	9	12	16	20	24	27	30
In-Tap	5-1000	6.5	9.0	12.0	16.0	20.0	24.0	27.0	30.0
	5-300	2.7	1.6	1.4	0.8	0.7	0.8	0.9	0.8
In-Out	300-660	2.9	1.8	1.8	1.0	0.5	0.6	0.6	0.9
	660-1000	3.2	2.1	1.9	1.2	1.5	1.5	1.6	1.1

#### Isolation (dB)

Port	Frequency (MHz)	Model IT1-x ITV1-x							
		6	9	12	16	20	24	27	30
Tap-Out	5-300	23	23	23	23	36	55	55	60
	300-660	23	23	23	23	31	43	43	43
	660-1000	20	20	20	20	27	38	38	38

#### Return Loss (dB)

Port	Frequency (MHz)	Model IT1-x ITV1-x			
		6	9	12	16
All	5-300	18	18	18	18
	300-660	18	18	18	18
	660-1000	18	18	18	18

Tolerance: Insertion Loss In – Out = ± 0.5 dB; In – Tap = 1.2 dB; Isolation = ± 2 dB; Return Loss = ± 2 dB.



## 2 Way Directional Couplers IT2 Series

### FEATURES

- Directional couplers with two taps
- Two-way system compatible
- Outdoor/Indoor Uses
- Housing: Zinc Diecast Tin Plated
- Solderback design
- Non-Corrosive ports
- Built-in Ground Block
- Non-Power Passing

### PARAMETERS

- Frequency range: 5-1000 MHz
- RFI: -130 dB
- IM2: -60/55 dBmV/dBmV
- Input blocking capacitor: yes 2 kV
- Temperature range: -40/+140 °C
- Impedance: 75Ω
- Ports: „F“



#### Insertion Loss (dB)

Port	Frequency (MHz)	Model						
		IT2 - 6	IT2 - 9	IT2 - 12	IT2 - 16	IT2 - 20	IT2 - 25	IT2 - 30
In-Tap	5-1000	6.5	9.0	12.0	16.0	20.0	25.0	30.0
	5-300	3.5	2.9	1.8	1.2	0.9	0.7	0.7
In-Out	300-660	3.8	3.1	2.0	1.6	0.9	0.7	0.7
	660-1000	4.5	3.4	2.4	1.7	1.0	0.9	0.9

#### Isolation (dB)

Port	Frequency (MHz)	Model						
		IT2 - 6	IT2 - 9	IT2 - 12	IT2 - 16	IT2 - 20	IT2 - 25	IT2 - 30
Tap-Out	5-300	20	23	23	23	35	38	40
	300-660	20	23	23	23	35	35	35
	660-1000	20	20	20	20	29	30	30

#### Return Loss (dB)

Port	Frequency (MHz)	Model						
		IT2 - 6	IT2 - 9	IT2 - 12	IT2 - 16	IT2 - 20	IT2 - 25	IT2 - 30
All	5-300	18	18	18	18	18	18	18
	300-660	18	18	18	18	18	18	18
	660-1000	16	18	18	18	16	16	16

Tolerance: Insertion Loss In – Out = ± 0.5 dB; In – Tap = 1.2 dB; Isolation = ± 2 dB; Return Loss = ± 2 dB.

Isolation Tap-Tap = min. 20 dB

## 3 Way Directional Couplers IT3 Series

### FEATURES

- Three Way Directional Coupler
- Housing: Zinc Diecast Tin Plated
- Indoor/Outdoor Uses
- Non-Power Passing
- Ground Post, Built-In
- Non-Corrosive Brass „F“ ports

### PARAMETERS

- Frequency range: 5-1000 MHz
- RFI: -130 dB
- IM2: -60/55 dBmV/dBmV
- Blocking Capacitor: yes 2 kV
- Temperature range: -40/+140 °C



#### Insertion Loss (dB)

Port	Frequency (MHz)	Model			
		IT3 - 10	IT3 - 12	IT3 - 16	IT3 - 20
In-Tap	5-1000	10	12.0	16.0	20.0
	5-300	3.9	3.4	1.5	1.0
In-Out	300-660	4.2	3.8	1.8	1.2
	660-1000	4.7	4.4	2.2	1.5

#### Isolation (dB)

Port	Frequency (MHz)	Model			
		IT3 - 10	IT3 - 12	IT3 - 16	IT3 - 20
Tap-Out	5-300	23	23	23	20
	300-660	23	23	23	25
	660-1000	20	20	20	22

#### Return Loss (dB)

Port	Frequency (MHz)	Model			
		IT3 - 10	IT3 - 12	IT3 - 16	IT3 - 20
All	5-300	18	18	18	18
	300-660	18	18	18	18
	660-1000	18	18	18	18

Tolerance: Insertion Loss In – Out =  $\pm 0.5$  dB; In – Tap = 1.2 dB; Isolation =  $\pm 2$  dB; Return Loss =  $\pm 2$  dB.  
Isolation Tap-Tap = min. 20 dB

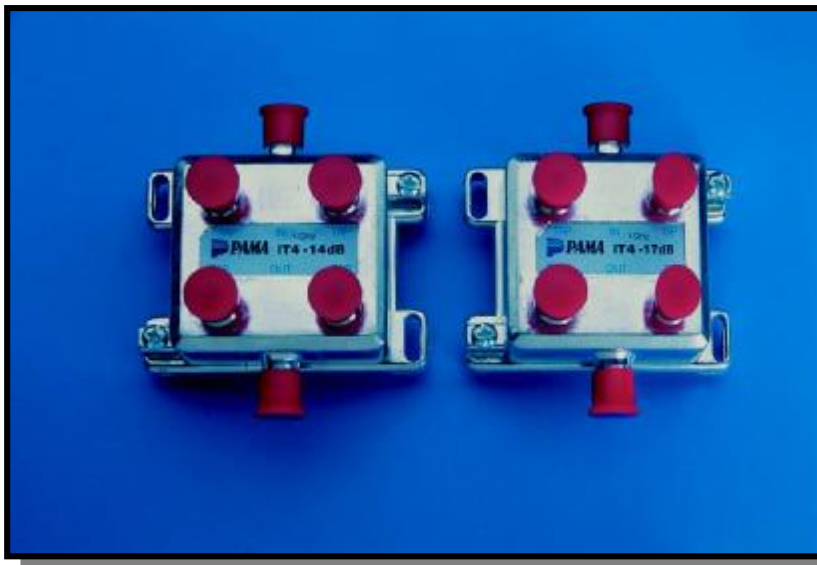
## 4 Way Directional Couplers IT4 Series

### FEATURES

- Directional tap with vertical four ports
- Two-way system compatible
- Outdoor/Indoor Uses
- Housing: Zinc Diecast Tin Plated
- Solderback design
- Non-Corrosive ports
- Built-in Ground Block
- Non-Power Passing

### PARAMETERS

- Frequency range: 5-1000 MHz
- RFI: -130 dB
- IM2: -60/55 dBmV/dBmV
- Input blocking capacitor: yes 2 kV
- Temperature range: -40/+140 °C
- Impedance: 75Ω
- Ports: „F“



Insertion Loss (dB)							
Port	Frequency (MHz)	Model					
		IT4 – 10	IT4 - 12	IT4 - 16	IT4 - 20	IT4 - 23	IT4 – 26
In-Tap	5-1000	8.5	12.0	16.5	20.0	25.0	26.0
	5-300	4.3	3.3	1.8	0.8	0.8	0.7
In-Out	300-660	4.6	3.6	2.0	0.9	0.9	0.8
	660-1000	5.1	4.0	2.4	1.4	1.2	1.0
Isolation (dB)							
Port	Frequency (MHz)	Model					
		IT4 – 10	IT4 - 12	IT4 - 16	IT4 - 20	IT4 - 23	IT4 – 26
Tap-Out	5-300	23	23	23	36	38	38
	300-660	23	23	23	33	35	36
	660-1000	23	23	23	26	28	30
Return Loss (dB)							
Port	Frequency (MHz)	Model					
		IT4 – 10	IT4 - 12	IT4 - 16			
All	5-300	19	19	18			
	300-660	19	19	18			
	660-1000	18	18	18			

Tolerance: Insertion Loss In – Out = ± 0.5 dB; In – Tap = 1.2 dB; Isolation = ± 2 dB; Return Loss = ± 2 dB.



## 8 Way Directional Couplers IT8 Series

### FEATURES

- Directional tap with vertical eight ports
- Two-way system compatible
- Outdoor/Indoor Uses
- Housing: Zinc Diecast Tin Plated
- Solderback design
- Non-Corrosive ports
- Built-in Ground Block
- Non-Power Passing

### PARAMETERS

- Frequency range: 5-1000 MHz
- RFI: -130 dB
- IM2: -60/55 dBmV/dBmV
- Input blocking capacitor: yes 2 kV
- Temperature range: -40/+140 °C
- Impedance: 75Ω
- Ports: „F“



#### Insertion Loss (dB)

Port	Frequency (MHz)	Model				
		IT8 - 6	IT8 - 9	IT8 - 12	IT8 - 16	IT8 - 20
In-Tap	5-1000	6.5	8.5	12.0	16.5	20.0
In-Out	5-300	2.7	3.9	3.4	1.5	1.0
	300-660	2.9	4.2	3.8	1.8	1.2
	660-1000	3.2	4.7	4.4	2.2	1.5

#### Isolation (dB)

Port	Frequency (MHz)	Model				
		IT8 - 6	IT8 - 9	IT8 - 12	IT8 - 16	IT8 - 20
Tap-Out	5-300	23	23	23	23	20
	300-660	23	23	23	23	25
	660-1000	23	23	23	23	22

#### Return Loss (dB)

Port	Frequency (MHz)	Model				
		IT8 - 6	IT8 - 9	IT8 - 12	IT8 - 16	IT8 - 20
All	5-300	19	19	19	19	16
	300-660	19	19	19	19	18
	660-1000	19	19	19	19	16

Tolerance: Insertion Loss In – Out = ± 0.5 dB; In – Tap = 1.2 dB; Isolation = ± 2 dB; Return Loss = ± 2 dB.



## INDOOR TAP 860 MHz – ITH 2

### Features:

- High quality full band taps
- Ideal for indoor taping distribution
- 7 taping values available (8,5 - 12,5 - 16 - 20 - 24 - 28 - 32dB)
- Grounding port provided
- RF shielded zinc die cast case with nickel coated

\* at 40MHz - 1,5dB / OCT

### General Specifications:

Model/Tap value in dB		8,5	12,5	16	20	24	28	32
Frequency Range		5 - 860 MHz						
Tap Loss In-Tap (dB)	5-20 MHz	8,5 ± 1,5	12,5 ± 1,5	16 ± 1	20 ± 1	24 ± 1	28 ± 1	32 ± 1
	20-40 MHz	8,5 ± 1	12,5 ± 1	16 ± 1	20 ± 1	24 ± 1	28 ± 1	32 ± 1
	40-300 MHz	8,5 ± 1	12,5 ± 1	16 ± 1	20 ± 1	24 ± 1	28 ± 1	32 ± 1
	300-860 MHz	8,5 ± 1,5	12,5 ± 1,5	16 ± 1,5	20 ± 1,5	24 ± 1,5	28 ± 1,5	32 ± 1,5
Insertion Loss In-Out (dB)	5-20 MHz	3 ± 1	1,4 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6
	20-40 MHz	3 ± 1	1,4 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6
	40-300 MHz	3 ± 1	1,4 ± 0,8	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6	1,2 ± 0,6
	300-860 MHz	3,8 ± 1	2 ± 1	2 ± 0,8	1,8 ± 0,8	1,8 ± 0,5	1,5 ± 0,8	1,5 ± 0,8
Isolation Tap-Out (dB,min)	5-20 MHz	22	25	30	32	35	40	40
	20-40 MHz	22	25	30	35	35	40	40
	40-300 MHz	20	25	30	32	35	35	35
	300-860 MHz	18	20	20	22	26	26	30
Isolation Tap-Tap (dB,min)	5-20 MHz	28	40	40	40	40	40	18
	20-40 MHz	28	40	40	40	40	40	20
	40-300 MHz	28	40	40	40	40	40	20
	300-860 MHz	25	36	36	36	36	36	20
Return Loss In Port (dB,min)	5-20 MHz	18						
	20-40 MHz	20						
	40-300 MHz	20*						
	300-860 MHz	20*						
Return Loss Out Port (dB,min)	5-20 MHz	18						
	20-40 MHz	20						
	40-300 MHz	20*						
	300-860 MHz	20*						
Return Loss Tap Port (dB,min)	5-20 MHz	18			20			
	20-40 MHz	20						
	40-300 MHz	20*						
	300-860 MHz	20*						
Screening (dB)	5-470 MHz	>75						
	470-860 MHz	>65						
Connectors (all ports)		Standard "F" - Female						
Impedance (all ports)		75 Ohms						
Standard Packing		10 pcs / inner box, 200 pcs / carton						
Packed Weight		Net = 18 kgs, Gross = 19 kgs / carton						

## INDOOR TAP 860 MHz – ITH 3

### Features:

- High quality full band taps
- Ideal for indoor taping distribution
- 3 taping values available (12 - 16 - 20 dB)
- Grounding port provided
- RF shielded zinc die cast case with nickel coated

\* at 40MHz - 1,5dB / OCT

### General Specifications:

Model/Tap value in dB		12	16	20
Frequency Range		5 - 860 MHz		
Tap Loss In-Tap (dB)	40-400 MHz	12,5 ± 1	16 ± 1	20 ± 1
	5-860 MHz	12,5 ± 1,5	16 ± 1,5	20 ± 1,5
Insertion Loss In-Out (dB)	40-400 MHz	1,8 ± 0,6	1,2 ± 0,6	1,2 ± 0,6
	5-860 MHz	2 ± 0,6	1,2 ± 0,8	1,2 ± 0,8
Isolation Out-Tap (dB,min)	40-400 MHz	30		
	5-860 MHz	26		
Isolation Tap-Tap (dB,min)	40-400 MHz	40		
	5-860 MHz	36		
Return Loss In (dB,min)	40-400 MHz	16	18	18
	5-860 MHz	20*		
Return Loss Out (dB,min)	40-400 MHz	18		
	5-860 MHz	20*		
Return Loss Tap (dB,min)	40-400 MHz	18		
	5-860 MHz	20*		
Screening (dB)	40-400 MHz	>75		
	5-860 MHz	>65		
Connectors (all ports)		Standard "F" - Female		
Impedance (all ports)		75 Ohms		
Standard Packing		10 pcs / inner box, 200 pcs / carton		
Packed Weight		Nett 19 kgs, gross 20 kgs / carton		



## INDOOR TAP 860 MHz – ITH 4, 6, 8

### Features:

- High quality full band taps
- Ideal for indoor taping distribution
- 3 taping values available (12 - 16 - 20 dB)
- Grounding port provided
- RF shielded zinc die cast case with nickel coated

\* at 40MHz - 1,5dB / OCT

### General Specifications (for 4, 6, 8/860):

Frequency Range	5-20 MHz	20-40 MHz	40-300 MHz	300-860 MHz	
Out-Tap Isolation (dB)	25	25	22	20	
Tap-Tap Isolation	40	40	40	36	
In-Port Return Loss	14	20	20*	20*	
Out-Port Return Loss	16	20	20*	20*	
Tap Port Return Loss	16	20	20*	20*	
Screening	>75			>65	
Connectors (all ports)	Standard "F" - Female				
Impedance (all ports)	75 Ohms				
Standard Packing	1 pc / inner box, 50 pcs / carton				
Packed Weight	Nett 15 kgs, gross 16 kgs / carton				
Through-Loss & Tap Loss Table					
ITH 4 /860 Loss in dB	In-Out	4,5 ± 1	4,5 ± 1	4,5 ± 1	4,8 ± 1
	In-Tap 1	13,5 ± 1	13 ± 1	13 ± 1	13 ± 1,5
	In-Tap 2	14 ± 1	13,5 ± 1	13,5 ± 1	13,5 ± 1,5
	In-Tap 3	15,5 ± 1	15 ± 1	15 ± 1	15 ± 1,5
	In-Tap 4	16 ± 1	15,5 ± 1	15,5 ± 1	15,5 ± 1,5
ITH 6 /860 Loss in dB	In-Out	6,8 ± 1	6,8 ± 1	6,8 ± 1	7,5 ± 1
	In-Tap 1	13,5 ± 1	13 ± 1	13 ± 1	13,5 ± 1,5
	In-Tap 2	14 ± 1	13,5 ± 1	13,5 ± 1	13,5 ± 1,5
	In-Tap 3	15,5 ± 1	15 ± 1	15 ± 1	15 ± 1,5
	In-Tap 4	16 ± 1	15,5 ± 1	15,5 ± 1	15,5 ± 1,5
	In-Tap 5	18 ± 1	17,5 ± 1	17,5 ± 1	17,5 ± 1,5
ITH 8 /860 Loss in dB	In-Out	8,8 ± 1	8,8 ± 1	8,8 ± 1	9,5 ± 1
	In-Tap 1	13,5 ± 1	13 ± 1	13 ± 1	13,5 ± 1,5
	In-Tap 2	14 ± 1	13,5 ± 1	13,5 ± 1	13,5 ± 1,5
	In-Tap 3	15,5 ± 1	15 ± 1	15 ± 1	15 ± 1,5
	In-Tap 4	16 ± 1	15,5 ± 1	15,5 ± 1	15,5 ± 1,5
	In-Tap 5	18 ± 1	17,5 ± 1	17,5 ± 1	17,5 ± 1,5
	In-Tap 6	18,5 ± 1	18 ± 1	18 ± 1	18 ± 1,5
	In-Tap 7	20,5 ± 1	20 ± 1	20 ± 1	20 ± 1,5
In-Tap 8	21 ± 1	20,5 ± 1	20,5 ± 1	20,5 ± 1,5	

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