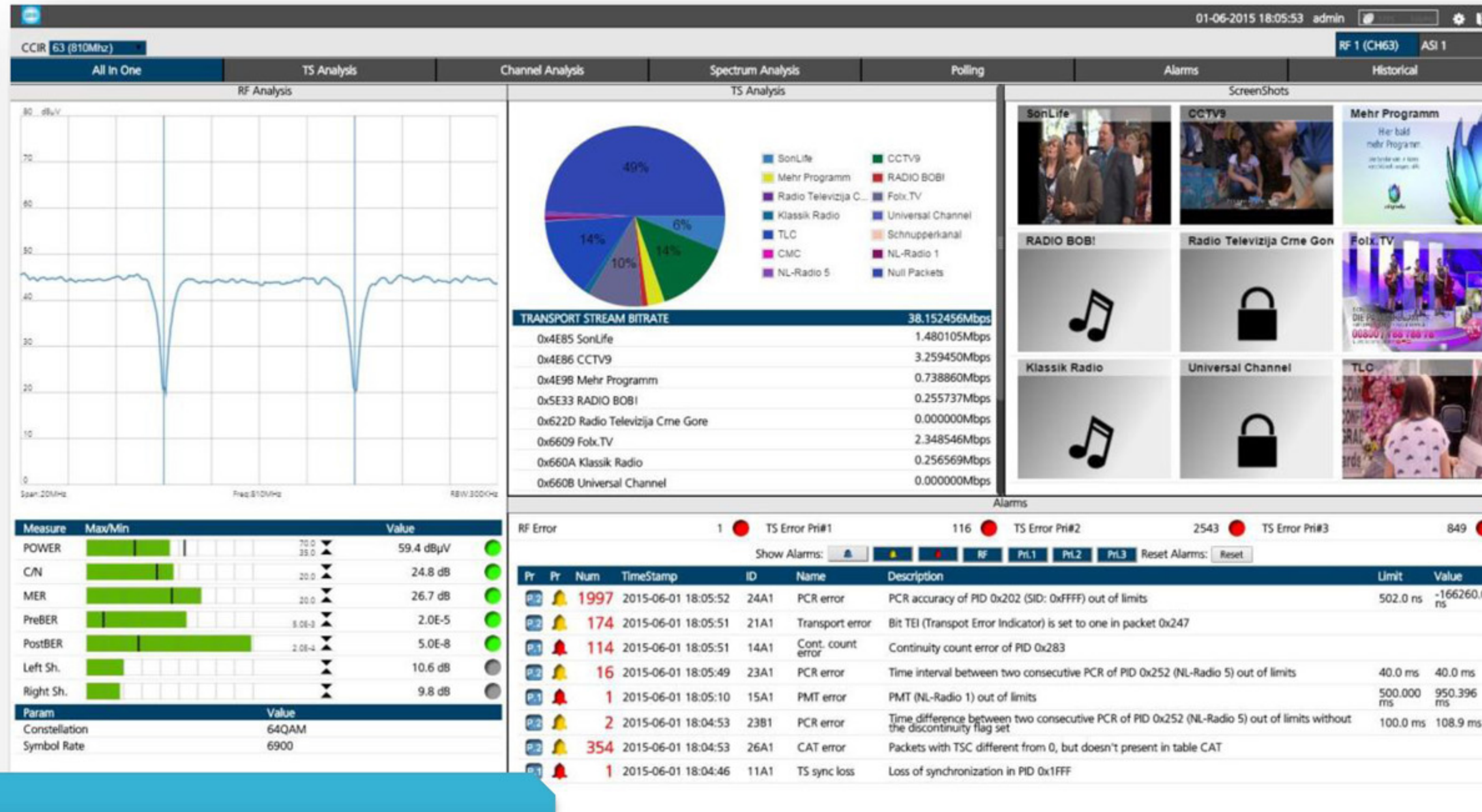




WA 4x - Platforma zdalnego monitoringu WISI Communications



Zdalny monitoring WA 4x



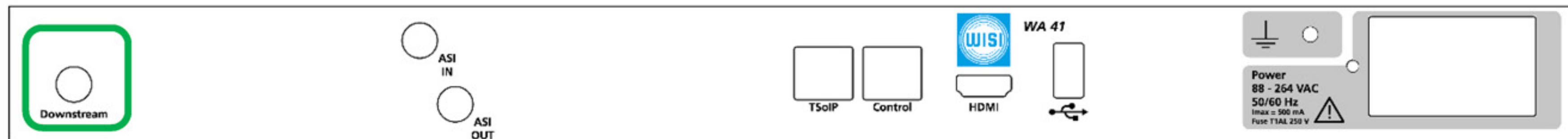
Zdalny dostę przez internet



Wybierz sprzęt bazowy (wejścia odbiornika i sprzęt dodatkowy) Podstawy

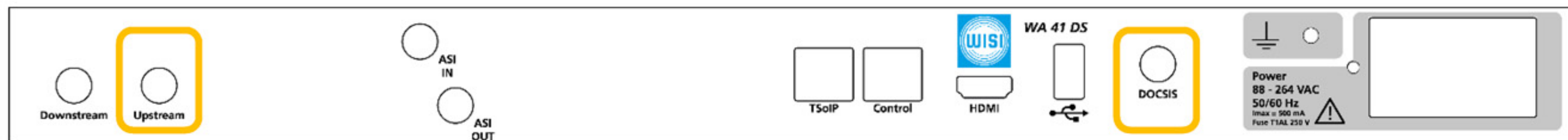


- 1 lub 4 wejścia odbiornika
- Dwie opcje sprzętowe*
 - Modem DOCSIS 3.0
 - Analizator widma

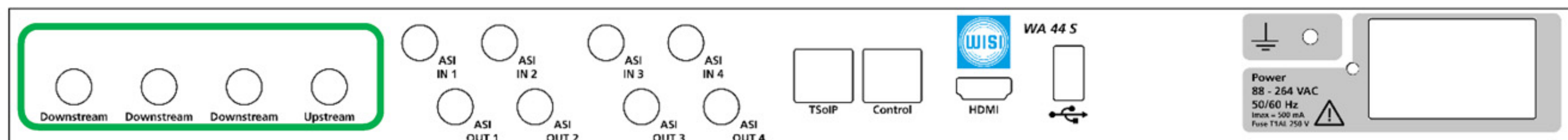


podstawa

WA 41

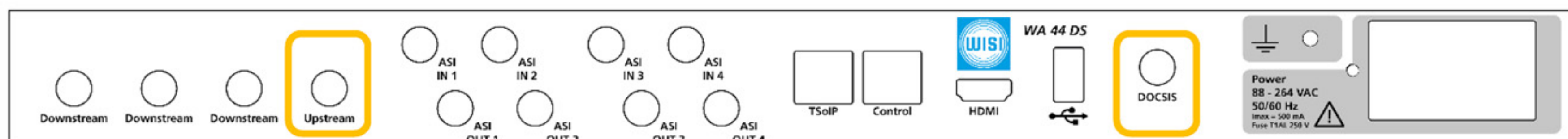


całość



podstawa

WA 44

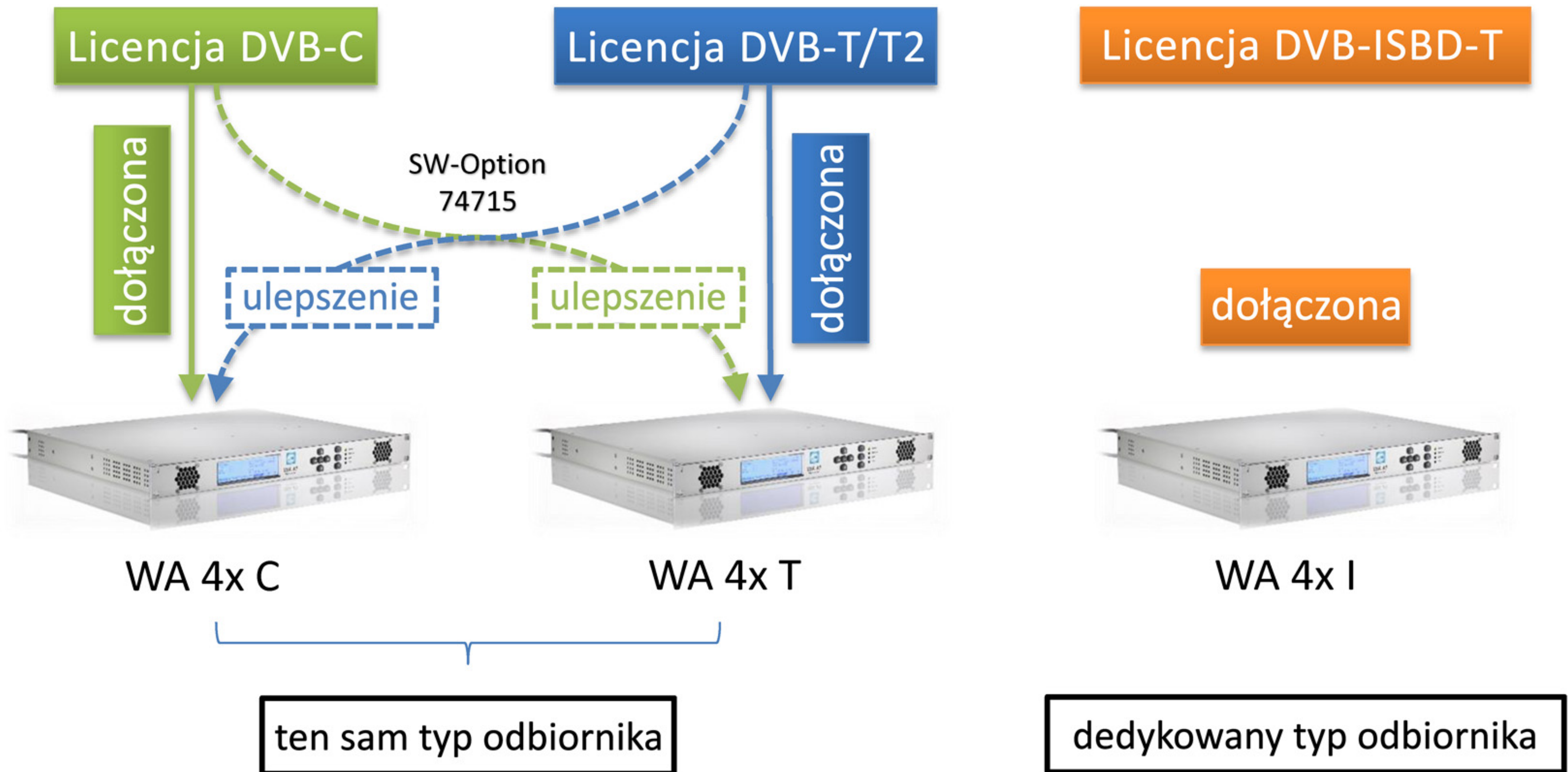


całość

*Q1 2017

WA 4X - wybierz sprzęt bazowy (rodzaj odbiornika)

Podstawy



Art. No.	Opis	Uwagi
74715	WA 4S T – additional standard (DVB-C/T-T2)	Dodaje dodatkowy standard DVB
74716	WA 4S H – Full historical measurements	Umożliwia składowanie na dysku wewnętrznym
74717	WA 4S A – Advanced RF measurements	Ta funkcja włącza wykres konstelacji oraz pełną analizę widma sygnału RF. Echa dla DVB-T, SFN Drift DVB-T
74718	WA 4S E – Extended TS analysis	Ta funkcja pokazuje dwa wykresy przedstawiające drgania PCR i interwał PCR wybranego pliku wideo MPEG oraz włącza analizę TR 101 290 P3 i alarmy.
74719	WA 4S I – IP Input	Włącza wejście IP INPUT oraz 2 procesory przepływu do analizy IPTV.
74720	WA 4S F – Additional IP flow processor	Ulepsza wejście IP do maks. 4 procesorów przepływu IP. Całkowita dostępna pojemność przetwarzania (RF + ASI + IP): 300 Mb/s.
74721	WA 4S L – Live Streaming	Streamuje wybraną usługę z WA 4x do urządzenia zewnętrznego.
74722	WA 4S R – TS Recording	Umożliwia nagrywanie strumienia transportowego wybranego kanału na dowolnym z jego wejść.



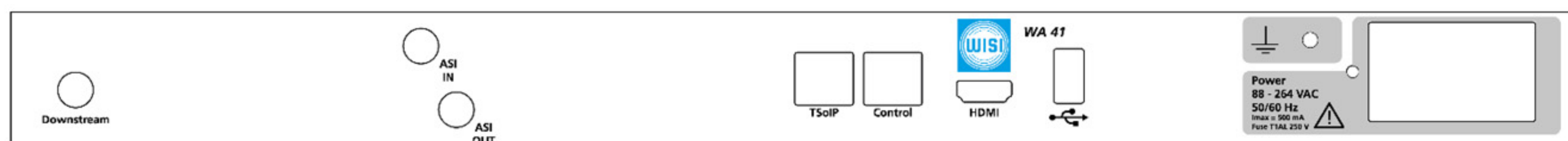
Porównanie opcji monitoringu

Jak przeprowadzać pomiary z WA x4

Podstawy monitoringu



- 1 lub 4 wejścia RF
- 2 porty TS przez IP
- 1 port HDMI



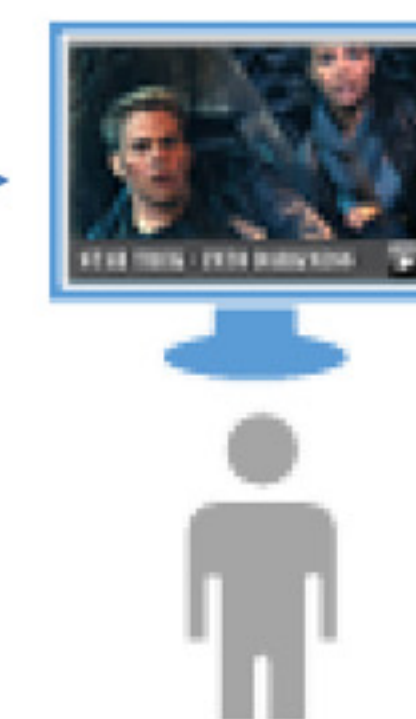
wejście RF

wejście MEG TS

emisja lokalna



(przekazany TS)
zdalne
monitoring / alarm
emisja zdalna
(przekazany TS)





WA 4x GUI (interfejs graficzny użytkownika)



All In One (Wszystko w jednym)

Pokazuje przegląd stanów kanałów na ekranie. Widmo, usługi, pomiary, alarmy, pid-y. Wszystko razem w jednym widoku dla szybkiej analizy.

Polling (odpytywanie) kanałów

The screenshot displays the RCS100 web interface for channel polling. The interface includes a navigation menu with tabs for 'All in One', 'TS Analysis', 'RF Analysis', 'Polling', 'Alarms', and 'Historical'. The 'Polling' tab is active, showing a 'Measures' table and a 'Polling' bar chart.

CH	POWER (dBμV)	C/N (dB)	MER (dB)	CBER	VBER
21 474MHz	29.5	6.9	—	—	—
22 482MHz	55.9	31.2	24.3	1.0E-3	<1.0E-8
23 490MHz	47.2	20.1	20.3	9.7E-3	4.5E-7
24 498MHz	25.1	7.2	—	—	—
25 506MHz	24.7	8.1	—	—	—
26 514MHz	23.6	6.9	—	—	—
27 522MHz	35.0	14.6	<16.0	9.7E-2	>1.0E-3
28 530MHz	32.9	7.6	<16.0	7.3E-2	>1.0E-3
29 538MHz	23.7	5.9	—	—	—
30 546MHz	20.7	4.7	—	—	—
31 554MHz	17.5	1.4	—	—	—
32 562MHz	18.9	1.3	—	—	—
33 570MHz	21.3	3.4	—	—	—
34 578MHz	25.9	8.7	—	—	—
35 586MHz	22.1	4.5	—	—	—
36 594MHz	23.5	5.4	—	—	—
37 602MHz	28.2	10.2	—	—	—
38 610MHz	43.6	25.2	19.3	1.5E-2	2.7E-6
39 618MHz	25.0	7.0	—	—	—

The 'Polling' bar chart shows signal levels in dBμV across channels 21 to 69. The y-axis ranges from 0 to 130 dBμV. The x-axis shows channel numbers. A vertical line at channel 63 indicates the current channel being measured.

The 'Alarms' section shows the following status:

- RF Error: 37 (Red circle)
- TS Error Pri#1: 0 (Green circle)
- TS Error Pri#2: 0 (Green circle)
- TS Error Pri#3: 0 (Green circle)

The 'Show Alarms' table lists the following events:

CH	Pri	Num	TimeStamp	ID	Name	Description	Limit	Value
40	RF	16	2014-10-06 15:06:04	41A5	CN too low	CN too low	24.0 dB	22.3 dB
40	RF	3	2014-10-06 15:06:01	42A2	Channel Unlock	Channel RF1 626.000 MHz is Unlocked!		
40	RF	9	2014-10-06 15:06:00	41A4	CBER too low	CBER too low	<1.0E-6	<1.0E-6
40	RF	7	2014-10-06 15:06:00	41A3	MER too low	MER too low	20.4 dB	<16.0 dB
40	RF	2	2014-10-06 15:05:58	42A1	Channel Lock	Channel RF1 626.000 MHz is Locked!		

Polling

Ciągłe pomiary kanałów zdefiniowanych przez użytkownika

WA 40 - Strona główna - All In One (Przegląd wszystkiego) xView - Monitoring usług



CCIR 63 (810Mhz)
01-06-2015 18:05:53 admin
RF 1 (CH63) ASI 1

All In One
TS Analysis
Channel Analysis
Spectrum Analysis
Polling
Alarms
Historical

RF Analysis

Span: 20MHz Freq: 810MHz RBW: 300KHz

TS Analysis

SonLife	49%
Mehr Programm	14%
Radio Televizija C...	10%
Klassik Radio	14%
TLC	6%
CMC	1%
NL-Radio 5	1%
CCTV9	1%
RADIO BOBI	1%
Folx.TV	1%
Universal Channel	1%
Schnupperkanal	1%
NL-Radio 1	1%
Null Packets	1%

Transport Stream ID	Channel Name	Bitrate
0x4E85	SonLife	1.480105Mbps
0x4E86	CCTV9	3.259450Mbps
0x4E9B	Mehr Programm	0.738860Mbps
0x5E33	RADIO BOBI	0.255737Mbps
0x622D	Radio Televizija Crne Gore	0.000000Mbps
0x6609	Folx.TV	2.348546Mbps
0x660A	Klassik Radio	0.256569Mbps
0x660B	Universal Channel	0.000000Mbps

ScreenShots

Measure	Max/Min	Value
POWER	70.0 / 35.0	59.4 dBµV
C/N	20.0	24.8 dB
MER	20.0	26.7 dB
PreBER	5.0E-3	2.0E-5
PostBER	2.0E-4	5.0E-8
Left Sh.		10.6 dB
Right Sh.		9.8 dB

Param	Value
Constellation	64QAM
Symbol Rate	6900

Alarms

RF Error: 1 TS Error Pri#1: 116 TS Error Pri#2: 2543 TS Error Pri#3: 849

Show Alarms: RF Pri.1 Pri.2 Pri.3 Reset Alarms: Reset

Pr	Pr	Num	TimeStamp	ID	Name	Description	Limit	Value
P.2	🔔	1997	2015-06-01 18:05:52	24A1	PCR error	PCR accuracy of PID 0x202 (SID: 0xFFFF) out of limits	502.0 ns	-166260.0 ns
P.2	🔔	174	2015-06-01 18:05:51	21A1	Transport error	Bit TEI (Transpot Error Indicator) is set to one in packet 0x247		
P.1	🔔	114	2015-06-01 18:05:51	14A1	Cont. count error	Continuity count error of PID 0x283		
P.2	🔔	16	2015-06-01 18:05:49	23A1	PCR error	Time interval between two consecutive PCR of PID 0x252 (NL-Radio 5) out of limits	40.0 ms	40.0 ms
P.1	🔔	1	2015-06-01 18:05:10	15A1	PMT error	PMT (NL-Radio 1) out of limits	500.000 ms	950.396 ms
P.2	🔔	2	2015-06-01 18:04:53	23B1	PCR error	Time difference between two consecutive PCR of PID 0x252 (NL-Radio 5) out of limits without the discontinuity flag set	100.0 ms	108.9 ms
P.2	🔔	354	2015-06-01 18:04:53	26A1	CAT error	Packets with TSC different from 0, but doesn't present in table CAT		
P.1	🔔	1	2015-06-01 18:04:46	11A1	TS sync loss	Loss of synchronization in PID 0x1FFF		

WA 40 - TS Analysis (analiza TS) - BitRate (przepustowość) xView - Monitoring usług



01-06-2015 18:16:54 admin RF 1 (CH57) ASI 1

CCIR 57 (762Mhz)

BitRate | Table Repetition | Quality | PCR Jitter | TreeView | Configuration

Historical

2015-06-01 18:11:54 | 2015-06-01 18:16:54

Filter by: Last 5 min.

Id	Service	Mbps
	TOTAL TS	38.152452
	Null Packets	2.534173
	SI Tables	1.236103
	Other Packets	2.147753
0x71B5	ServusTV HD	11.671461
0x9CA5	AXN HD	7.167299
0xA08F	Mehr Programm	0.943527
0xAC45	QVC HD	4.481714
0xAC46	HSE24 HD	7.970422

Key	Value
Name	TOTAL TS
BitRate	72.892416 Mbps 38.152444 Mbps

38.152452 Mbps@MGB1(188,1s,1s)

Service	PID	Type	BitRate	Profile
ServusTV HD	0x5B	AIT	0.000000 Mbps	MGB1(payload,1s,1s)
ServusTV HD	0x20B	Video H264	10.652520 Mbps	MGB1(payload,1s,1s)
ServusTV HD	0x20C	Audio AC3 ger	0.448436 Mbps	MGB1(payload,1s,1s)
ServusTV HD	0x20D	Audio MPEG2 ger	0.160956 Mbps	MGB1(payload,1s,1s)
ServusTV HD	0x20E	Audio MPEG2 eng	0.160956 Mbps	MGB1(payload,1s,1s)
ServusTV HD	0x210	Teletext ger	0.248593 Mbps	MGB1(payload,1s,1s)
AXN HD	0x233	Video H264	7.167299 Mbps	MGB1(payload,1s,1s)
AXN HD	0x234	Audio AC3 deu	0.000000 Mbps	MGB1(payload,1s,1s)
AXN HD	0x235	Audio AC3 eng	0.000000 Mbps	MGB1(payload,1s,1s)
Mehr Programm	0x229	Video MPEG2	0.943527 Mbps	MGB1(payload,1s,1s)
QVC HD	0x215	Video H264	3.921897 Mbps	MGB1(payload,1s,1s)
QVC HD	0x216	Audio AC3 deu	0.384822 Mbps	MGB1(payload,1s,1s)
QVC HD	0x21A	Teletext deu	0.174995 Mbps	MGB1(payload,1s,1s)
QVC HD	0x637	AIT	0.000000 Mbps	MGB1(payload,1s,1s)
HSE24 HD	0x21F	Video H264	7.410605 Mbps	MGB1(payload,1s,1s)
HSE24 HD	0x220	Audio AC3 deu	0.383350 Mbps	MGB1(payload,1s,1s)
HSE24 HD	0x224	Teletext deu	0.176467 Mbps	MGB1(payload,1s,1s)
HSE24 HD	0x655	AIT	0.000000 Mbps	MGB1(payload,1s,1s)

WA 40 - TS Analysis (analiza TS) - Quality (szegóły jakości) xView - Monitoring usług



01-06-2015 18:21:16 admin

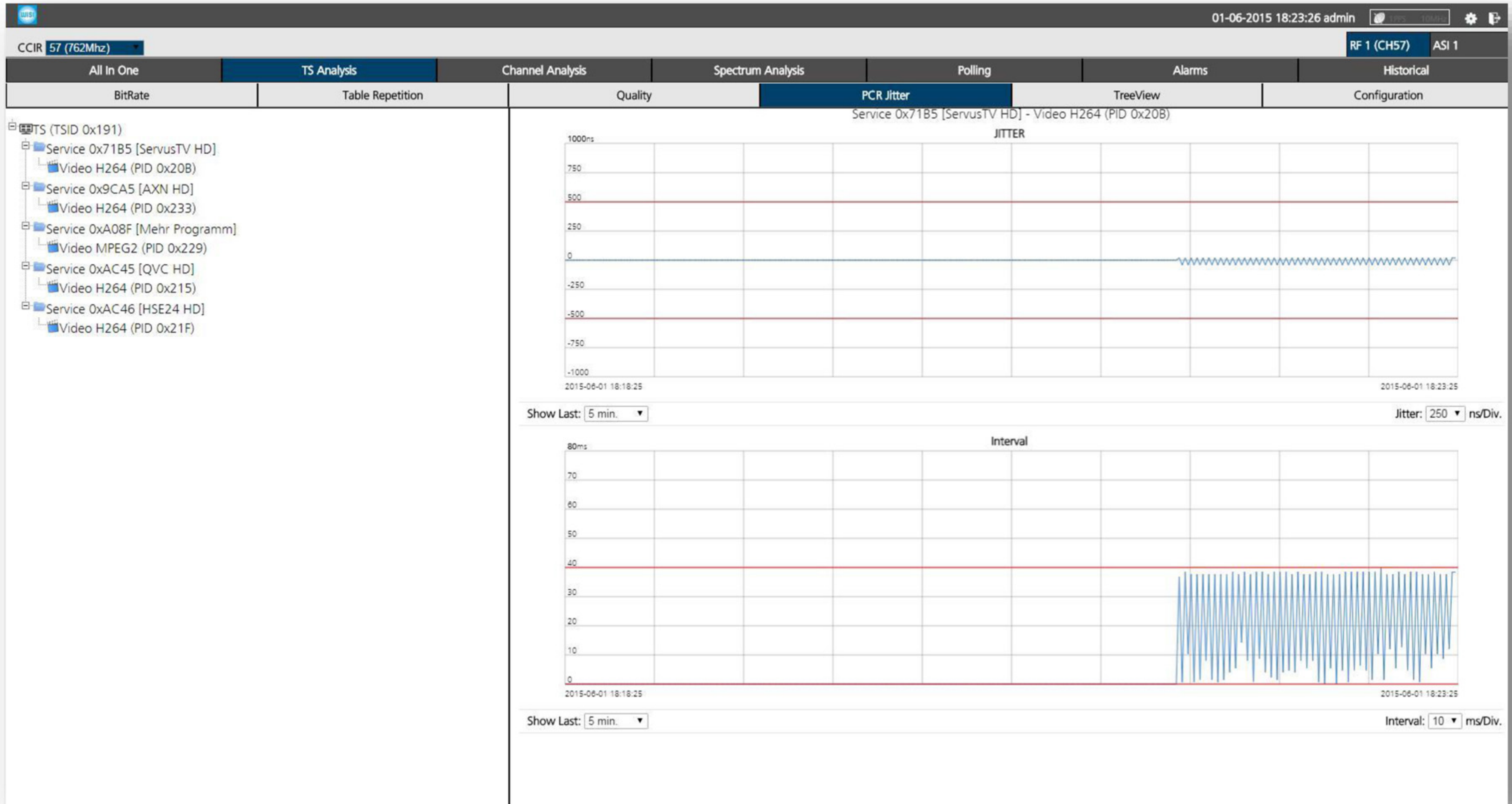
CCIR 57 (762Mhz) RF 1 (CH57) ASI 1

All In One TS Analysis Channel Analysis Spectrum Analysis Polling Alarms Historical

BitRate Table Repetition Quality PCR Jitter TreeView Configuration

PID	Name	Mbps	Channel Usage %	Type	Slot Occupation
0x71B5	ServusTV HD	8.742285		HD7	
0x9CA5	AXN HD	7.142375		HD7	
0xA08F	Mehr Programm	0.798999		SD	
0xAC45	QVC HD	11.942218		HD7	
0xAC46	HSE24 HD	3.407757		HD3	
TOTAL TS		38.152452			

WA 40 - TS Analysis (analiza TS) - PCR Jitter (drgania PCR) xView - Monitoring usług



WA 40 - Spectrum Analysis (analiza widma)

xView - Monitoring usług



01-06-2015 18:07:59 admin

CCIR 63 (810MHz) RF 1 (CH63) ASI 1

All In One TS Analysis Channel Analysis **Spectrum Analysis** Polling Alarms Historical

Spectrum

Measures

POWER	59.4 dB μ V
C/N	24.8 dB

Marks

Mark	Max	Value	Min
1 801.953 MHz	45.2 dB μ V	44.7 dB μ V	44.0 dB μ V
2 817.968 MHz	44.8 dB μ V	44.6 dB μ V	43.3 dB μ V
Δ -16.015 MHz	-0.4 dB μ V	-0.1 dB μ V	-0.6 dB μ V

SPECTRUM OPTIONS

Span: 20 MHz Max: ON Min: ON

MASK OPTIONS

New Mask Disable

Max. Offset: 3 dB μ V Min. Offset: -5 dB μ V

Spectrum Alarms

Reset Spectrum Alarms:

Num	TimeStamp	ID	Description
1	2015-06-01 18:07:28	42A2	Channel RF1 810.000 MHz is Unlocked!

POWER 59.4 dB μ V

C/N 24.8 dB

MER 26.9 dB

PreBER 2.3E-5

PostBER 7.7E-8

WA 40 - Polling (odpytywanie kanałów) xView - Monitoring usług



01-06-2015 18:09:58 admin RF 1 (POLL) ASI 1

All In One TS Analysis Channel Analysis Spectrum Analysis **Polling** Alarms Historical

Polling Historical Pollings Configuration

Measures

CH	POWER (dBμV)	C/N (dB)	MER (dB)	PreBER	PostBER
43 650MHz	64.7	29.2	32.9	1.9E-6	<1.0E-9
44 658MHz	64.8	29.3	33.0	2.1E-6	<1.0E-9
62 802MHz	60.0	25.4	28.7	<1.0E-8	<1.0E-9
63 810MHz	59.4	24.8	27.0	1.2E-5	<1.0E-9

130 dBμV

Measuring...

64.7dBμV 64.8dBμV 60.0dBμV 59.4dBμV

0 43 44 62 63

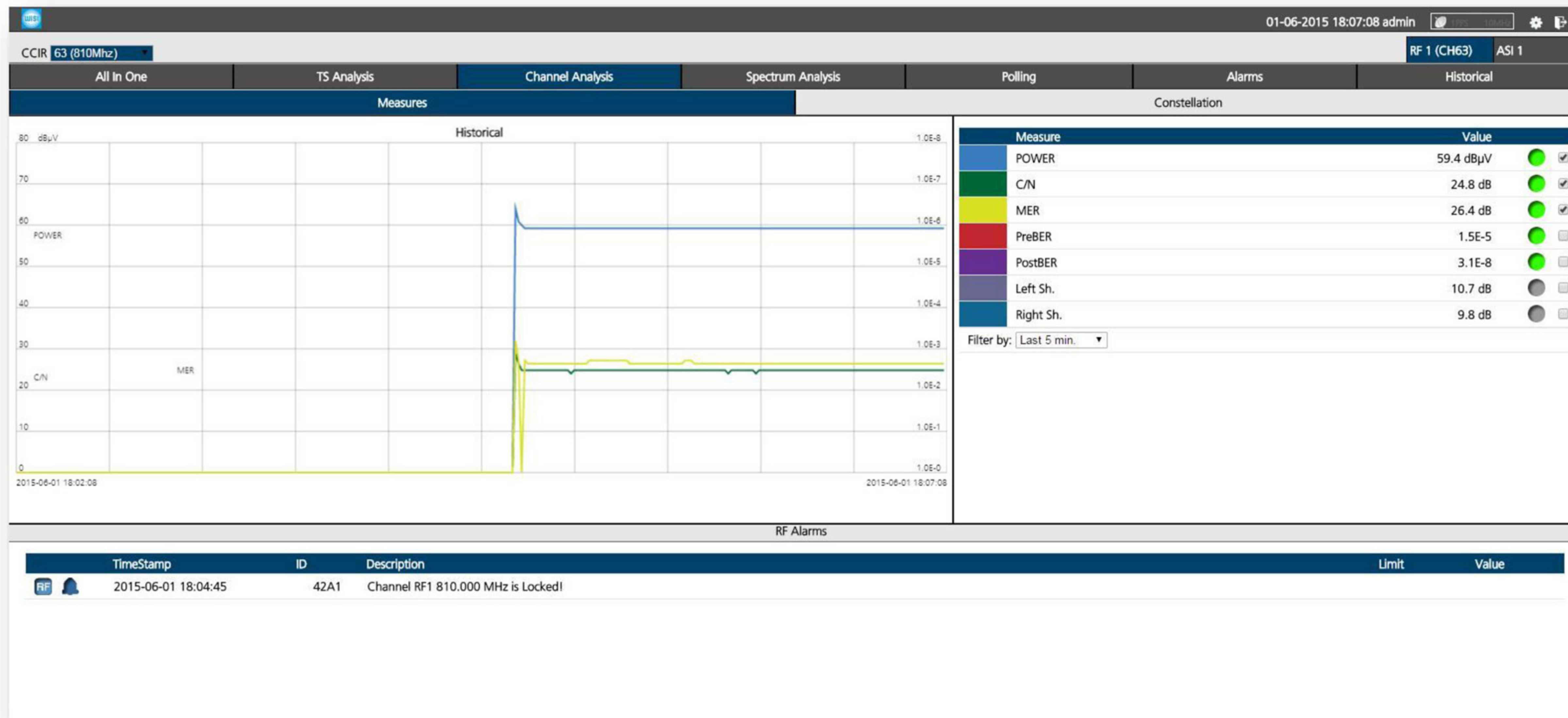
Alarms

RF Error 0 TS Error Pri#1 41 TS Error Pri#2 350 TS Error Pri#3 69

Show Alarms: RF Pri.1 Pri.2 Pri.3

CH	Pr	Pr	Num	TimeStamp	ID	Name	Description	Limit	Value
63	P.2	🔔	349	2015-06-01 18:09:57	24A1	PCR error	PCR accuracy of PID 0x202 (SID: 0xFFFF) out of limits	502.0 ns	-153225.0 ns
63	P.2	🔔	1	2015-06-01 18:09:56	23A1	PCR error	Time interval between two consecutive PCR of PID 0x23E (NL-Radio 1) out of limits	40.0 ms	40.0 ms
44	P.1	🔔	41	2015-06-01 18:09:14	13A4	PAT error	PAT missing		

WA 40 - Channel Analysis (analiza kanałów) xView - Monitoring usług





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