ARGUS®
testing the telecom network

G.fast
VDSL
ADSL
SHDSL
GigE
LTE
ISDN
POTS
Cu
TDR
LQ
Copper Box
Data 10110101011
IP TV
Vo IP
PESQ
USB
WLAN



ARGUS® 156

» Overview of menu and test leads

valid from firmware version R1.02.00

intec
GESELLSCHAFT FÜR INFORMATIONSTECHNIK mbH

Legend, Status, Protocol overview

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Legend General

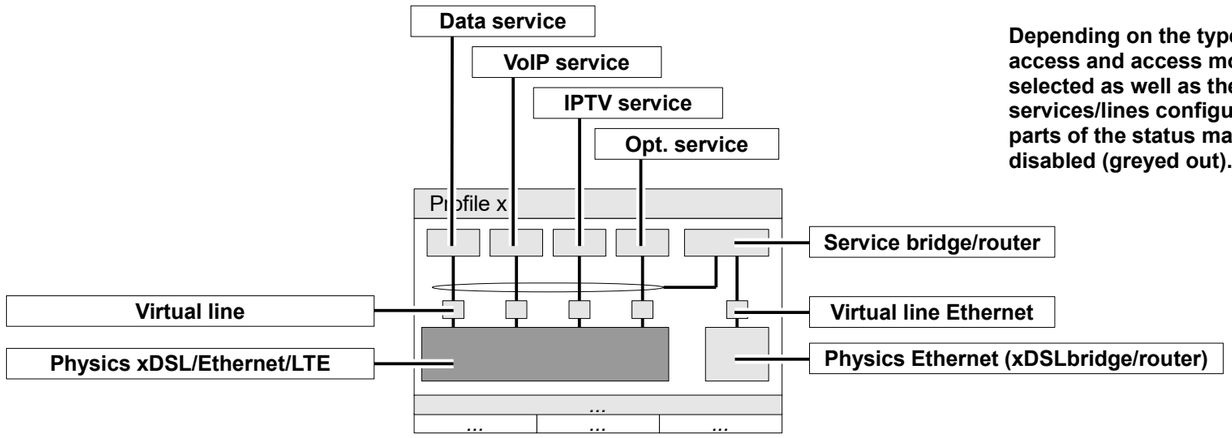
Menu
Configuration menu
Defaul Config.menu
Input menu
Default input menu

Depending on the specified interface, menu item will be shown

Menu item only matters for specified interface

Legend Status

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE



Depending on the type of access and access mode selected as well as the services/lines configured, parts of the status may be disabled (greyed out).

Protocol overview

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

Access			ADSL					VDSL / G.fast					SHDSL														ETH	LTE
													ATM					EFM					TDM		ITC		HDLC			
Mode			ATU-R	ATU-R bridge		ATU-R router		VTU-R / FTU-R	VTU-R bridge FTU-R bridge		VTU-R router FTU-R router		STU-R	STU-C	STU-R bridge		STU-R router	STU-R	STU-C	STU-R bridge		STU-R router		STU-R	STU-C	STU-R	STU-C	STU-R	STU-C		
Socket			Line	Line	LAN	Line	LAN	Line	Line	LAN	Line	LAN	Line	Line	Line	LAN	Line	LAN	Line	Line	Line	LAN	Line	LAN	Line	Line	Line	Line	Line	Line	LAN	USB
Protocol	ATM/Ethernet																															
without	-	without		a	a				a	a				a	a	a				a	a	a			a	a	a	a	a	a		
IP	-	IP					a	●			●	a						a	●				●	a							●	
	Yes	EoA	●			●							●			●																
	No	IPoA	●			●																										
PPP	Yes	PPPoE	●			●		●			●		●			●			●				●								●	●
	No	PPPoA	●			●																										
PPTP	-	PPTP																													●	

● – Protocol configurable (see page 20)
a – Protocol set automatically

Note

The basic ARGUS *156* package includes support for at least one DSL interface (VDSL or SHDSL) with a variety of functions and tests for the interface(s). Support for other interfaces and functions is optional (see the options in the data sheet). Consequently, depending on the scope of the functions delivered, certain menu items may be hidden. The type of access and access mode can affect this, too.

Hotkeys

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Menu Hotkeys

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

Key	ADSL / SHDSL ATM	G.fast / VDSL / SHDSL EFM	Ethernet	LTE
0	ARGUS status			
1	Help hotkeys			
2	-			
3	IP ping			
4	Trace route			
5	HTTP download			
6	Test status			
7	FTP download			
8	Copper Box		-	
9	IPTV			-
⎍	Status			
✆	VoIP call			-
✳ then 0	Access			
✳ then 1	ARGUS info *1			
✳ then 2	Restore config.			
✳ then 3	Factory setting			
✳ then 5	Test result upload (FTP)			
✳ then 6	Test status			
✳ then 7	Store			
✳ then 8	Configuration import			
✳ then 9	Firmware update			

BRI S / BRI U / PRI / POTS

Key	BRI S / BRI U	PRI	POTS
0	ARGUS status		
1	Help hotkeys		
2	Service check		-
3	Supp. Serv. test		-
4	Auto. Test		-
5	Test data to PC		
6	Test manager		-
7	Numbers		
8	-		
9	BERT start		-
⎍	Level measuring	L1 status	Voltage measuring
✆	Connection		
✳ then 0	Access		
✳ then 1	ARGUS info		
✳ then 2	Restore config.		
✳ then 3	Factory setting		
✳ then 5	-		
✳ then 6	Test manager		-
✳ then 7	-		
✳ then 8	-		
✳ then 9	-		

Copper tests

Key	Copper tests	Copper Box autotest
0	ARGUS status	-
1	Help hotkeys	-
2	-	
3	-	
4	-	
5	Test data to PC	-
6	-	
7	-	QR code
8	Copper Box	-
9	-	
⎍	-	
✆	-	
✳ then 0	Access	-
✳ then 1	ARGUS info	-
✳ then 2	Restore config.	-
✳ then 3	Factory setting	-
✳ then 5	-	
✳ then 6	-	
✳ then 7	-	Store
✳ then 8	-	
✳ then 9	-	

Graphic hotkeys

ADSL / VDSL / G.fast / xDSL trace

Key	ADSL / VDSL / G.fast	XDSL trace
0		
1	-	Legend
2	Zoom	-
3		
4	-	
5	-	
6	-	
7	-	
8	-	
9	Setting of x-axis	-
0	min / max	-
#	-	
✓	Continue	-
⎍	-	
✳ then 0	-	
✳ then 7	Store	-

Test hotkeys

Copper tests

Taste	Line scope (Frequency domain)	Line scope (Time domain)	TDR
0	-	-	-
1	-	-	-
2	Zoom	-	Zoom
3	Cursor		
4	Measurement range		
5	Total power	-	Pulse width
6	-	-	Wire type/VoP
7	Probe		-
8	Symmetry		Impedance
9	Time	FFT	Averaging
0	Peak hold (min/max)		-
#	100 Ohm Input resistance		-
✓	-	-	-
⎍	Run/Hold		
✳ then 0	Reference curve		
✳ then 7	Store		

User info / Inventory number

ARGUS info

*1

ARGUS info		
Type:	ARGUS156	
SW:	…	
Date:	…	
Loader:	…	
Ser.No.	…	
...		
...		
User info	...	...

User info		
...		
Inv.:	*Delete*	*12>ab*

Single tests

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Single tests

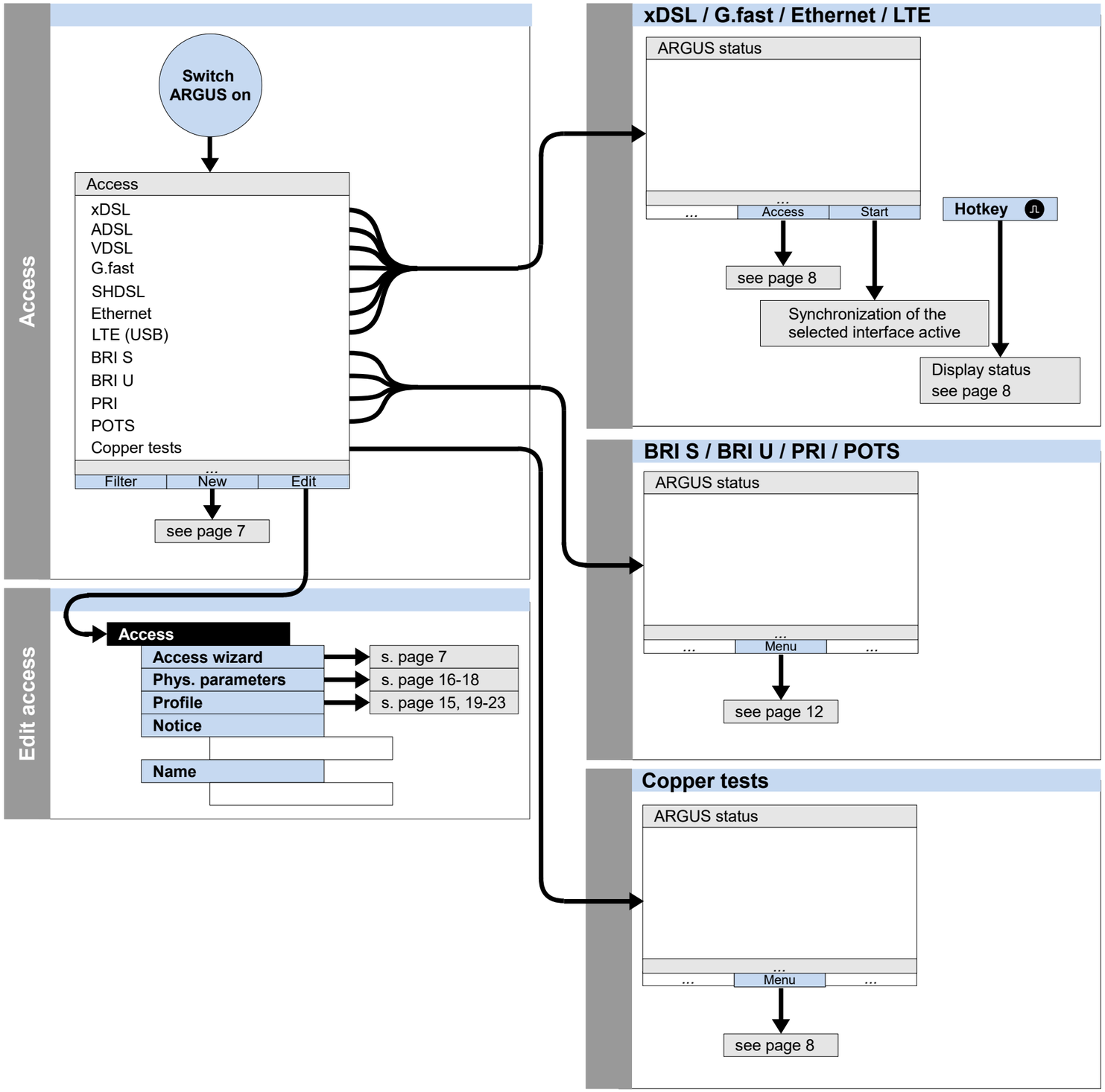
ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE / Copper tests

	ADSL / VDSL / G.fast	ADSL - / VDSL- / G.fast- / SHDSL bridge	ADSL-/ VDSL- / G.fast- / SHDSL router	SHDSL STU-R TE	SHDSL STU-C	Ethernet IP based	Ethernet cable test	LTE	Copper tests
IP ping	x	-	x	only ATM / EFM	only EFM	x	-	x	-
Traceroute	x	-	x	only ATM / EFM	-	x	-	x	-
HTTP downl./upl.	x	-	x	only ATM / EFM	-	x	-	x	-
FTP downl. /upl.	x	-	x	only ATM / EFM	-	x	-	x	-
FTP server	x	-	x	only ATM / EFM	only EFM	**x**	-	-	-
Textbrowser	x	-	x	only ATM / EFM	-	x	-	x	-
Network scan	-	-	-	-	-	x	-	-	-
VoIP call/ call generator / wait/ PESQ test	x	-	x	only ATM / EFM	-	x	-	-	-
IPTV / IPTV scan	x	-	x	only ATM / EFM	-	x	-	-	-
IPTV passive	-	Not SHDSL STU-C bridge	x	-	-	x	-	-	-
Video on demand	x	-	x	only ATM / EFM	-	x	-	-	-
LTE scan	-	-	-	-	-	-	-	x	-
Loop	-	-	only SHDSL ATM / EFM	only ATM / EFM	only ATM / EFM	x	-	-	-
Port flash	-	-	-	-	-	-	x	-	-
Copper Box	x	x	x	x	x	-	-	-	x
Line scope / TDR	-	-	-	-	-	-	-	-	x

Switch on and access menu

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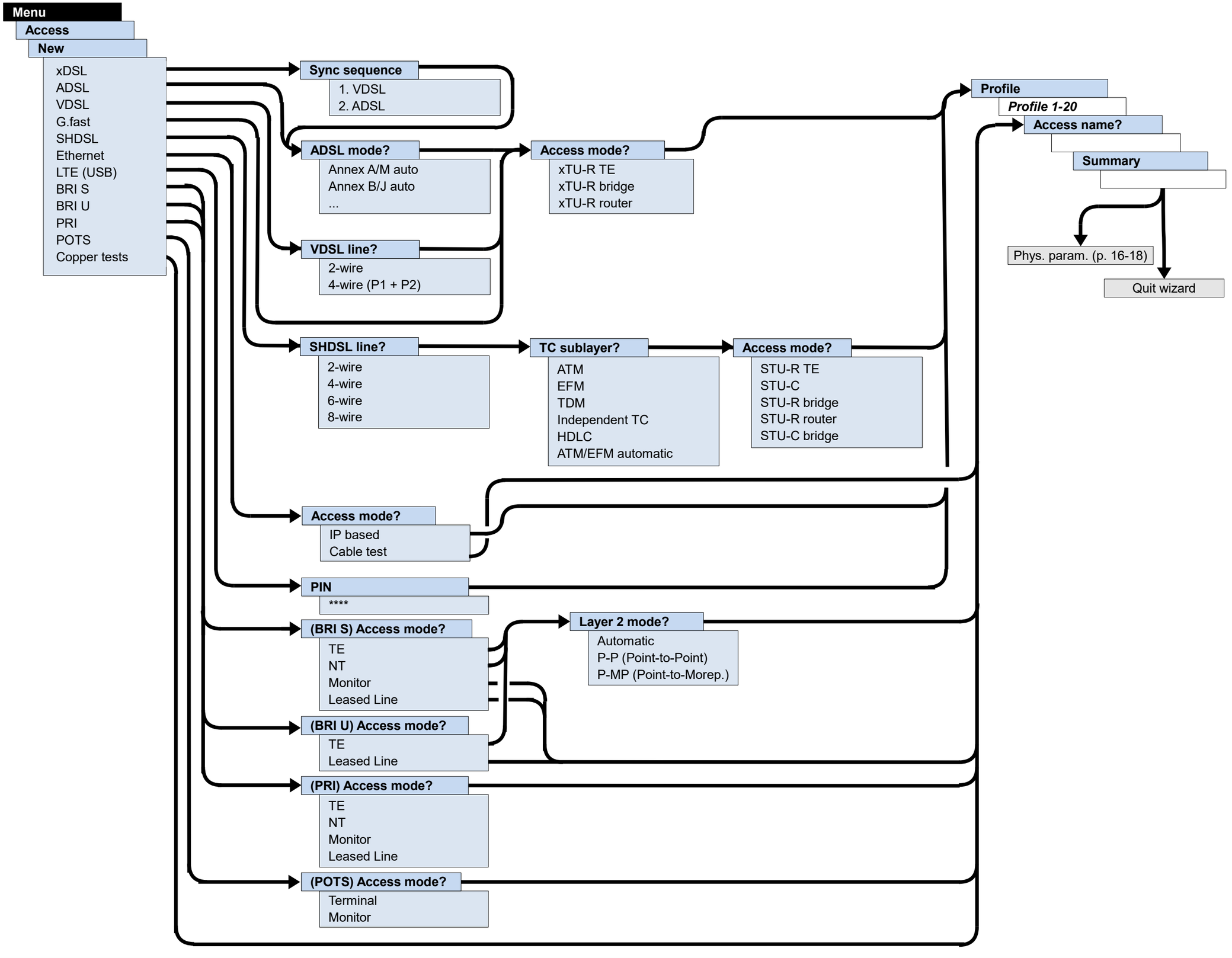


Access wizard

Cross reference:

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Access wizard



Main menu, Single tests, Test results, Status
(Access: ADSL, VDSL, G.fast, SHDSL, LTE, Ethernet, Copper tests)

Cross reference:

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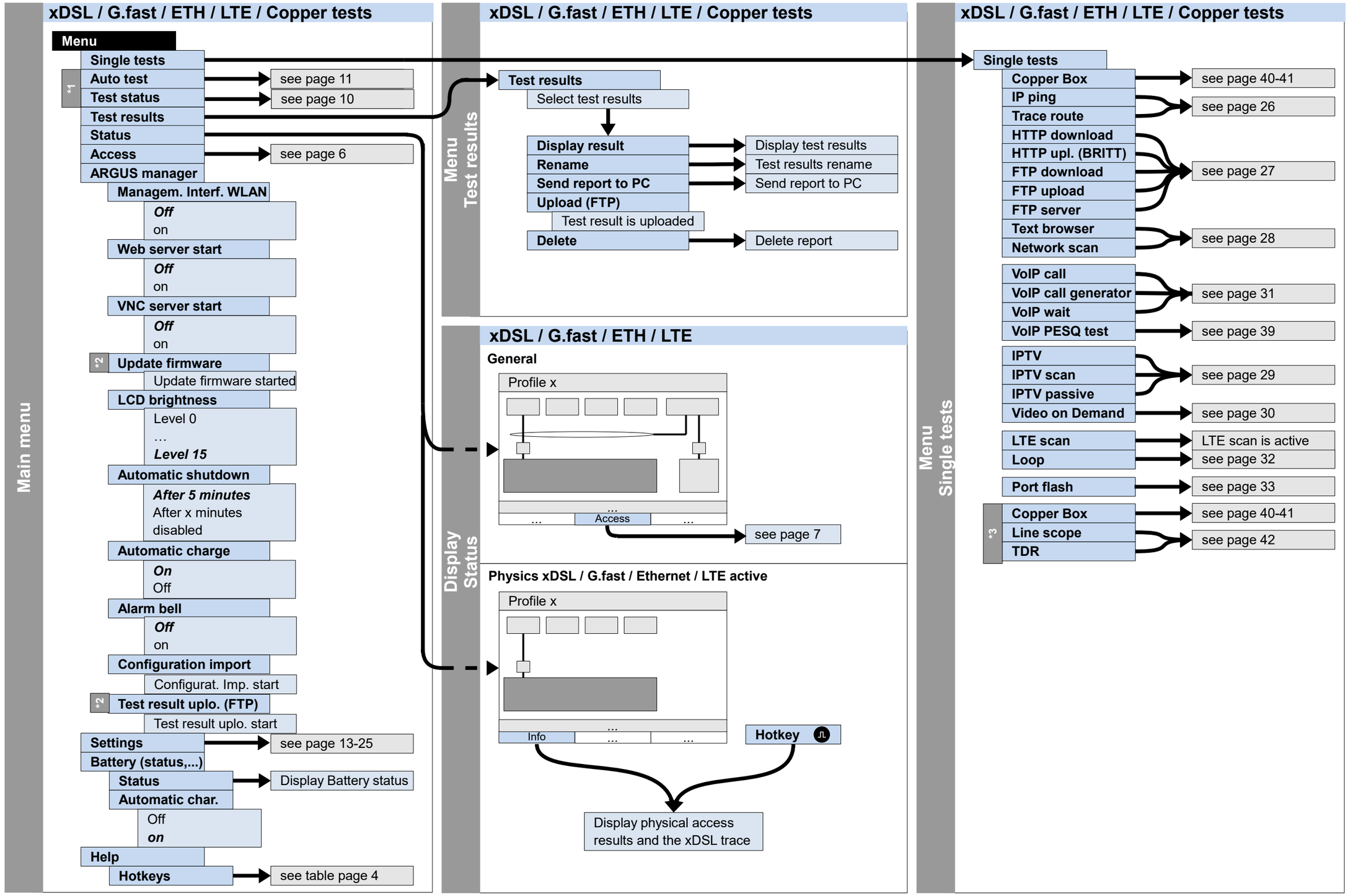
IP and ATM tests	page
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Note

*1 = ADSL, VDSL, G.fast, SHDSL, Ethernet

*2 = not for Copper tests

*3 = Copper tests

Service tests: Data tests, VoIP tests, IPTV tests, Opt. tests, Bridge tests, Physic tests (Access: ADSL, VDSL, G.fast, SHDSL, Ethernet, LTE)

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xDSL / G.fast / Ethernet / LTE

Service active

Display Status

Profile x

... Test ...

Menu Data tests

- Data tests
  - IP ping → see page 26
  - Trace route → see page 26
  - HTTP download → see page 27
  - HTTP upl. (BRITT) → see page 27
  - FTP download → see page 27
  - FTP upload → see page 27
  - FTP server → see page 27
  - Text browser → see page 28
  - Network scan → see page 28

xDSL / G.fast / Ethernet

Service active

Display Status

Profile x

... Test ...

Menu VoIP tests

- VoIP tests
  - IP ping → see page 26
  - Trace route → see page 26
  - VoIP call → see page 31
  - VoIP wait → see page 31
  - VoIP call generator → see page 31
  - VoIP PESQ test → see page 39

xDSL / Ethernet

Service active

Display Status

Profile x

... Test ...

Menu IPTV tests

- IPTV tests
  - IP ping → see page 26
  - Trace route → see page 26
  - IPTV → see page 29
  - IPTV scan → see page 29
  - IPTV passive → see page 29

xDSL / G.fast / Ethernet

Service active

Display Status

Profile x

... Test ...

Menu Opt. tests

- Opt tests
  - IP ping → see page 26
  - Trace route → see page 26
  - HTTP download → see page 27
  - HTTP upl. (BRITT) → see page 27
  - FTP download → see page 27
  - FTP upload → see page 27
  - FTP server → see page 27
  - Text browser → see page 28
  - Network scan → see page 28
  - Video on Demand → see page 30

ADSL / VDSL / G.fast - Bridge

Service active

Display Status

Profile x

... Test ...

Menu Bridge tests

- Bridge tests
  - IPTV passive → see page 29

ADSL / Ethernet / LTE

Physics xDSL/Ethernet active, Services inactive

Display Status

Profile x

... Test ...

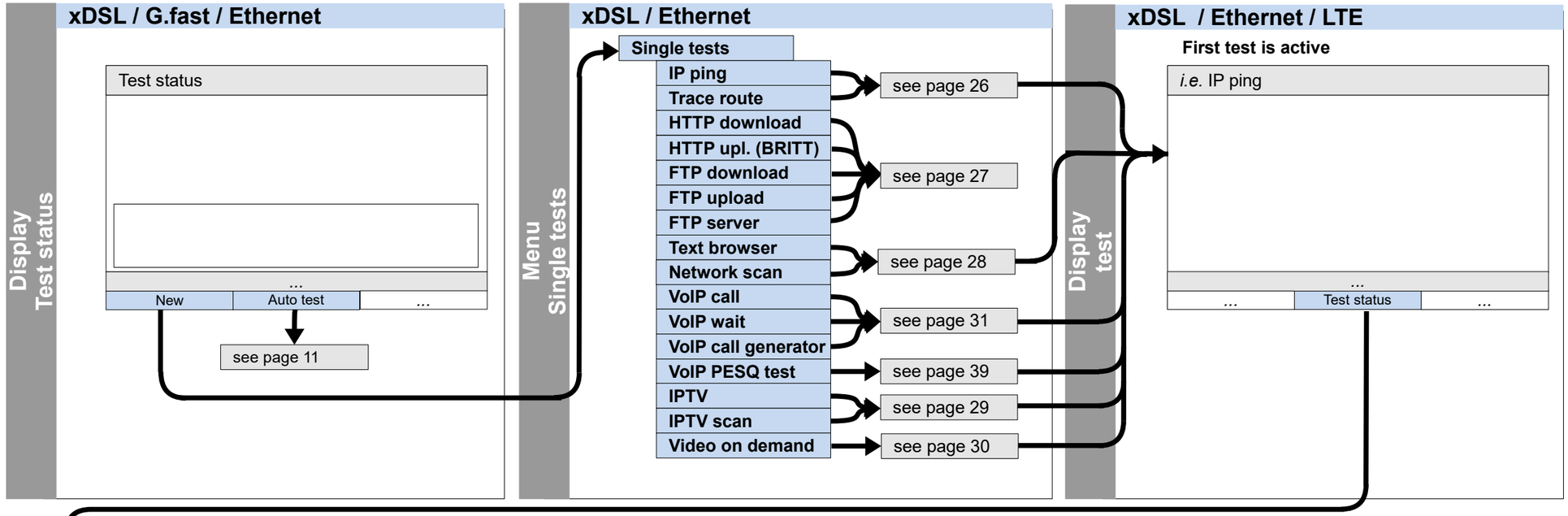
Menu Physic tests

- Physic tests
  - Loop → see page 32
  - LTE scan → LTE scan is active

Service tests: Parallel tests
Test status

Cross reference:

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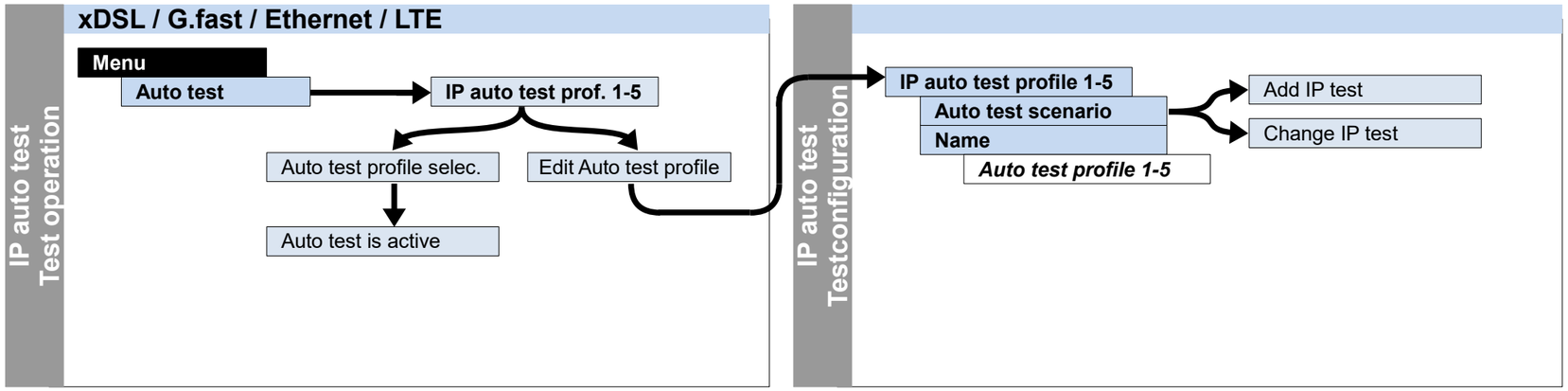
Note

The display and operation of VoIP and IPTV tests are presented in the same way as for Data tests.

Service tests: IP auto test

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Main menu, Single tests, Test results
(Access: BRI S, BRI U, PRI, POTS)

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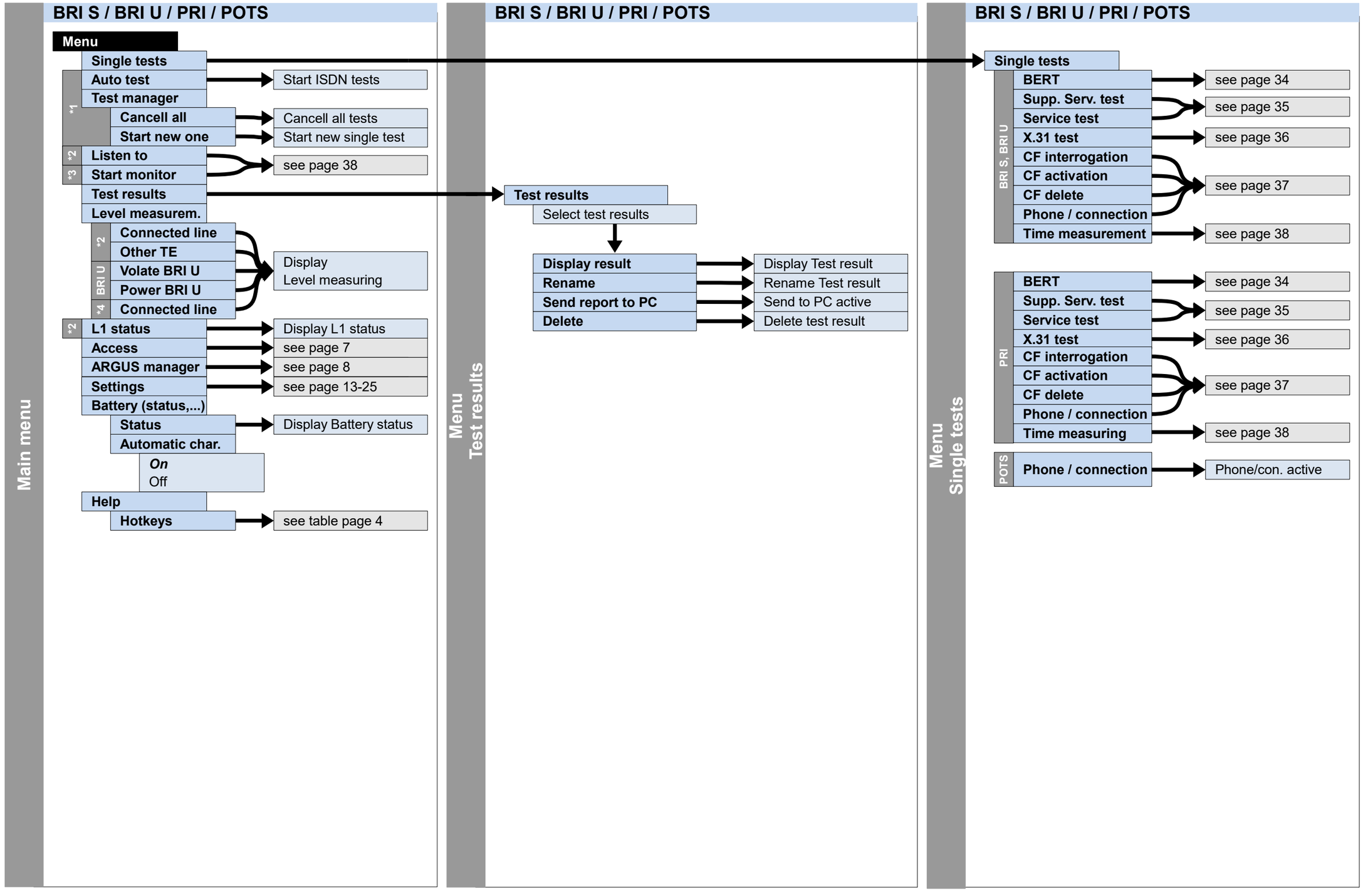
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Note

*1 = BRI S, BRI U, PRI
*2 = BRI S, PRI
*3 = BRI S, PRI, POTS
*4 = POTS

Settings and reset
Numbers, Backup/Restore, Cloud services

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Menu Settings

- **Menu**
  - **Settings**
    - *1 **Profiles** → see page 15-23
    - **ISDN and POTS** → see page 24-25
    - **Copper/Cable tests** → see page 42-43
    - **PESQ** → see page 39
    - **Cloud services**
    - **Remote access** → see page 14
    - **Device**
    - **Company address**
      - **Company name**
      - **Street**
      - **ZIP/City**
      - **Phone number**
    - **Backup/Restore**
      - **Back up configuration**
        - Save current configuration
      - **Restore configuration**
        - Restore saved configuration
      - **Factory settings**
        - Reset to factory settings
      - **Configuration import**
        - Configuration import started

Menu Cloud services

- **Cloud services**
  - **Firmware update**
    - **Server**
    - **Update check**
      - ***off***
      - on
    - Update
  - **Configuration import**
    - **Server**
    - **Check**
      - ***off***
      - on
    - Import
    - **Import destination**
      - Current configuration
      - Cur. & backed up config.
    - **Import**
  - **Test result upload**

Server selection
- ***Firmware***
- Configuration
- Test result

Select server

Edit server

Server
- **Use FTPS**
  - ***No***
  - Yes
- **FTP server address**
  - *2 ***Firmware.argus.info***
- **Username**
  - *2 ***argus***
- **Password**
  - *2 ***update***
- **Profilename**
  - *2 ***Firmware***
  - *3 ***Configuration***
  - *4 ***Test result***

Note

A firmware update and a configuration import can only be performed successfully when a connection to the service „date“ exists.

Note

Selecting "Factory settings" or "Backup configuration" requires a password to avoid an unintentionally deleting of the system configuration. Please contact the ARGUS support team at +49 2351 9070-90 to ask for the password. All settings will be set to default and test results will be deleted.

Note

*1 = not for ISDN

Note

*2 = Default only for server „Firmware“

*3 = Default only for server „Configuration“

*4 = Default only for server „Test result“

Settings and reset
Remote access, Device

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Menu Remote access

- **Menu**
  - **Settings**
    - **Remote access**
      - **Management interface** → **Start manage. Interf.**: ***Off***, on
      - **Web server**
        - **Start web server**: ***Off***, on
        - **Password protection**: Off, ***on***
      - **VNC server**
        - **Start web server**: ***Off***, on
        - **Password protection**: Off, ***on***
        - **VNC zoom factor**: Factor 1, ***Factor 2***, Factor 3, Factor 4
      - **Interface selection**: ETH, ***WLAN***
      - **WLAN**
        - **SSID**: ***ARGUS156_SN01234***
        - **Password**: ***argus156***
        - **Channel**: ***Channel: 1***
        - **DHCP server**
          - **Start/end address**: ***192.168.20.30*** / ***192.168.20.40***
          - **Domain**
          - **Reserve time**: Hours: ***240***
        - **IP settings**
          - **IP address**: ***192.168.20.1***
          - **Netmask**: ***255.255.255.0***
          - **Gateway**: ***0.0.0.0***

Menu Device

- **Menu**
  - **Settings**
    - **Device**
      - **Menu language** → German, ***English***, Francais
      - **LC brightness** → dark------light
      - **Date/time setting**
        - **Time offset**: ***UTC+01:00***
        - **Daylight saving time**: off, ***Central europ. (CEST)***
        - **Date/time**: Manual, ***Automatic*** → ***Date:*** / ***Time:***
      - **Ringer volume**
        - **Start volume**: ***Level 1***, ..., Level 7
        - **End volume**: Level 1, ..., ***Level 7***
      - **Alarm bell**: On, ***Off***
      - **Einschaltton**: On, ***Off***
      - **Power management**
        - **Automatic shutdown**: ***after 5 minutes***, after x minutes deactivated
        - **Lighting**: ***Off after 30 sec***, Off after x minutes
      - **Company address**
        - **Company name**
        - **Street**
        - **ZIP/City**
        - **Phone number**
      - **Software option**: Input SW option key
      - **Licenses** → Displays all the licenses available in the device
      - **As IPv4 number**: ***0.0.0.0***
      - **As name**: ***0.de.pool.ntp.org***

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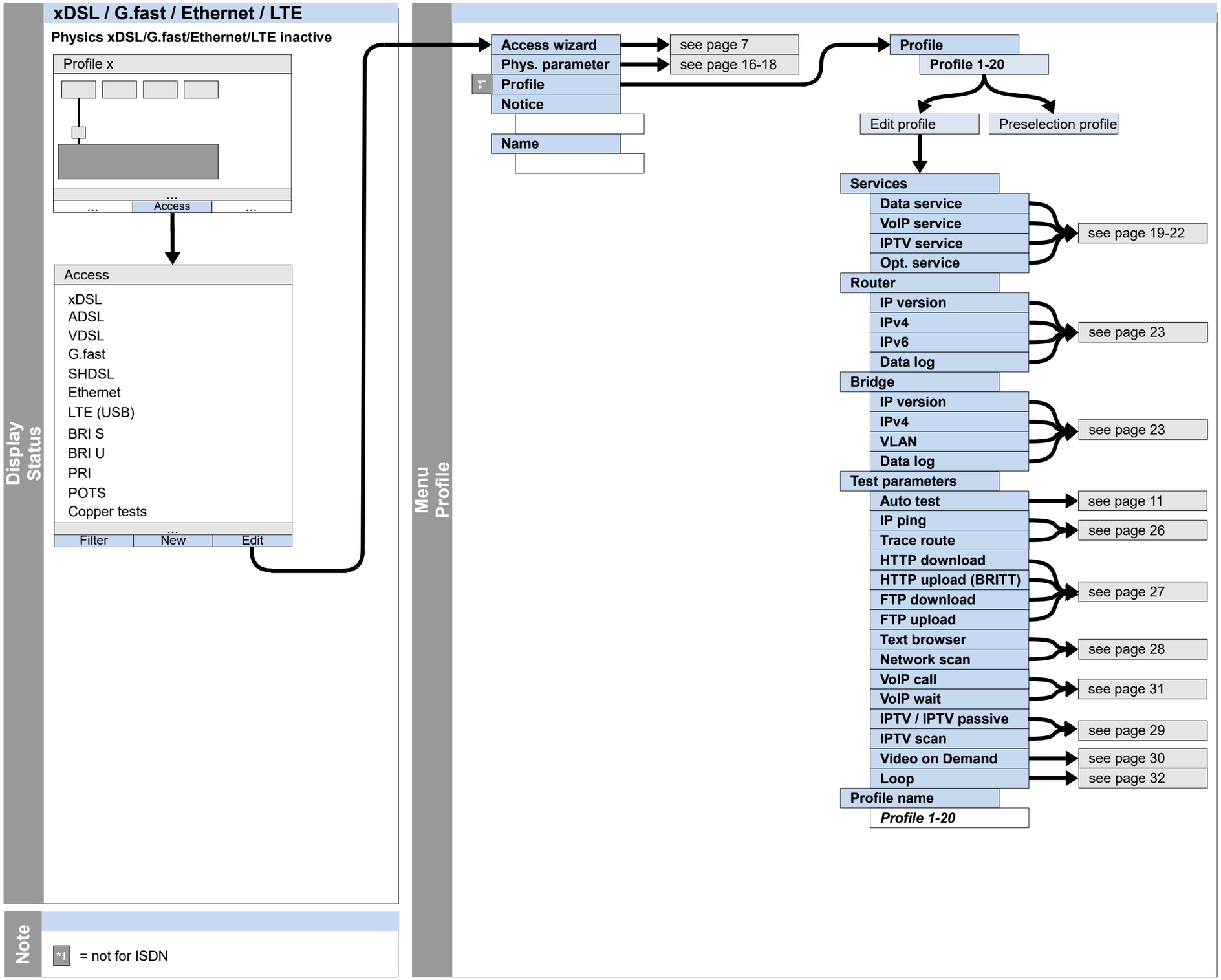
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Settings
Phys. parameters: ADSL, VDSL, G.fast, Ethernet

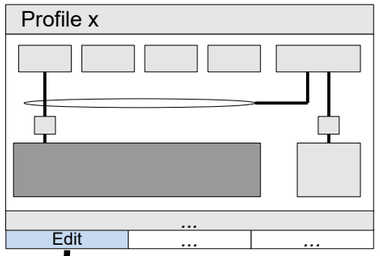
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Display ADSL Status

ADSL

Physics ADSL inactive



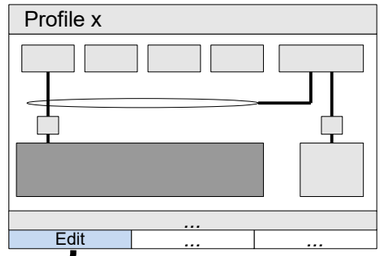
Menu ADSL

- **ADSL**
  - **Rated/threshold values**
    - **Bitrate**
      - Downstream: ***0 kbit/s***
      - Upstream: ***0 kbit/s***
    - **CRC**
      - far: *
      - near: *
    - **FEC**
      - far: *
      - near: *
    - **HEC**
      - far: *
      - near: *
  - **INP/SNRM**
    - Favour DS INP
    - ***Favour DS SNRM***
  - **Retransmission (G.INP)**
    - off
    - Downstream
    - Upstream
    - ***Down- & upstream***
  - **MAC address**
    - ***Default MAC address***
    - Dynamic MAC address
    - 00:00:00:00:00:00
  - **Gratuitous ARP**
    - ***Off***
    - On
  - **free definable**
    - 00 00 00 00 00 00

Display VDSL / G.fast Status

VDSL / G.fast

Physics VDSL / G.fast inactive



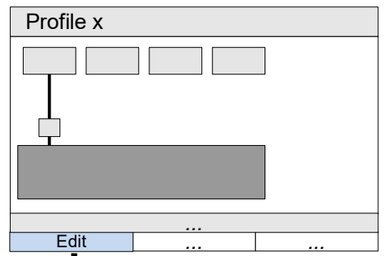
Menu VDSL / G.fast

- **VDSL / G.fast**
  - **Rated/threshold values**
    - **Bitrate**
      - downstream: ***0 kbit/s***
      - upstream: ***0 kbit/s***
    - **CRC**
      - far: *
      - near: *
    - **FEC**
      - far: *
      - near: *
  - *1 **Firmware**
    - ***A***
    - B
  - *1 **Carrier Set**
    - ***B 43***
    - ***A 43***
    - ***V 43***
  - *1 **Vectoring mode**
    - Off
    - ***Full vectoring***
  - *1 **Retransmission (G.INP)**
    - off
    - Downstream
    - Upstream
    - ***Down- & upstream***
  - **Suppress profile 30a**
    - ***No***
    - Yes
  - **MAC address**
    - ***Default MAC address***
    - Dynamic MAC address
    - 00:00:00:00:00:00
  - **Gratuitous ARP**
    - ***Off***
    - On
  - **free definable**
    - 00 00 00 00 00 00

Display ETH Status

Ethernet

Physics Ethernet inactive



Menu Ethernet

- **Ethernet**
  - **Autonegotiation**
    - ***On***
    - Off
  - **MAC address**
    - ***Default MAC address***
    - Dynamic MAC address
    - 00:00:00:00:00:00
  - **Gratuitous ARP**
    - ***Off***
    - On
  - **LACP mode**
    - ***Off***
    - On
  - **free definable**
    - 00 00 00 00 00 00
- **Autonegotiation Off**
  - **Speed**
    - ***1000 Mbit/s***
    - 100 Mbit/s
    - 10 Mbit/s
  - **Duplex**
    - ***Full***
    - Half
  - **Flow control**
    - ***On***
    - Off

Note

*1 = only for VDSL

Settings
Phys. parameters: SHDSL

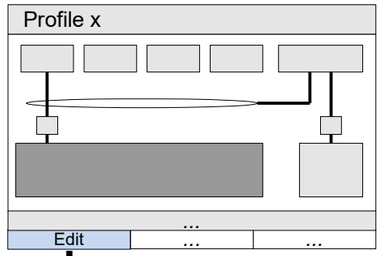
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Display Status

SHDSL

Physics SHDSL inactive



Menu SHDSL

- **SHDSL**
  - **Spectrum**: Annex A SHDSL; Annex B SHDSL; Annex F SHDSL.bis; Annex G SHDSL.bis; Annex A/F Auto; ***Annex B/G Auto***
  - *1 **Clock/framing**: ***synchronous***; plesiochronous; plesiochronous (NTR)
  - *1 **Channel selection**
  - *2 **Data rate**
  - **Power back off**: db: ***0***
  - **EOC usage**: off; ***on (passive)***; on (active)
  - **Sync word**: ***3F 16 1F 03 3C 0C***
  - **Message mode**: GHS mode A; GHS mode B; ***GHS mode C***; GHS mode D
  - **Vendor info field**: ***15 35***
  - **Wire pairs**: Line 1: **Wire pair *4-5***; Line 2: **Wire pair *3-6***; Line 3: **Wire pair *1-2***; Line 4: **Wire pair *7-8***
  - **Line probing (PMMS)**
  - **Interop bits**
  - **MAC address**: ***Default MAC address***; Dynamic MAC address; 00:00:00:00:00:00
  - **Gratuitous ARP**: ***off***; on
- **Data rate**
  - **SHDSL**: Rate: **** (in kbit/s)***
  - **SHDSL.bis**: Rate: **** (in kbit/s)***
- **Line probing (PMMS)**
  - **Rate adaptive mode**: Current condition SNR DS; Worst case G.991.2 SNR DS; Current condition SNR US; Worst case G.991.2 SNR US
  - **Target SNRm**

	up	down
Current:	***0***	***0***
Worst-Case:	***0***	***0***
(in dB)		

- **Interop bits**
  - **Line probing**: ***G.991.2***; Globespan
  - *3 **Multiwire**: ***Auto***; Globespan; G.991.2
  - *4 **SRU**: ***Off***; Elcon CoCo10M; Elcon international
  - **EOC error counter**: ***Absolute***; Delta
  - **QD2Lite**: ***off***; NT10ETH; NT2MSKU-T
- **MAC address**
  - **free definable**: ***00 00 00 00 00 00***
- **Channel sele. (TDM)**
  - **SHDSL**: B channels: *; Z channels: *
  - **SHDSL.bis**: B channels: *; Z channels: *

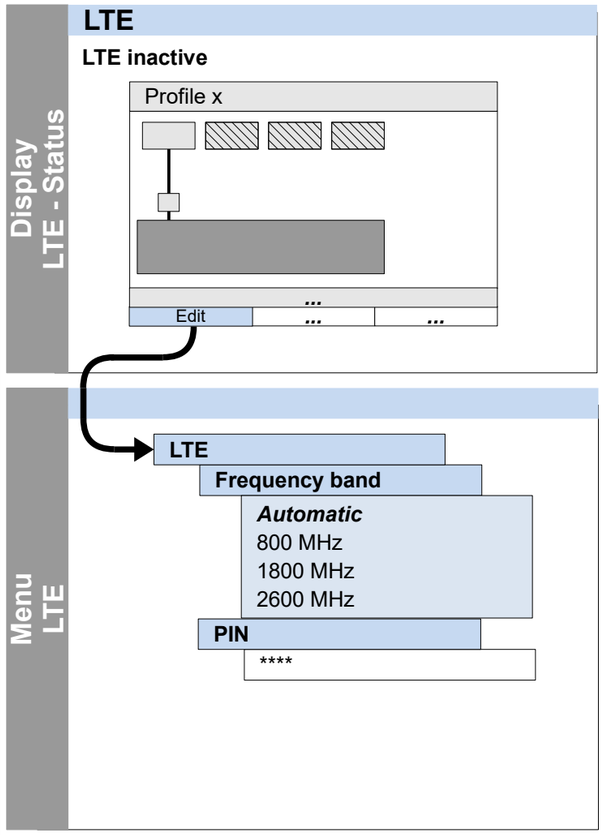
Note

- *1 = TDM, Independent TC, HDLC
- *2 = ATM, EFM
- *3 = ATM, TDM
- *4 = EFM, Independent TC

Settings
Phys. parameters: LTE

Cross reference:

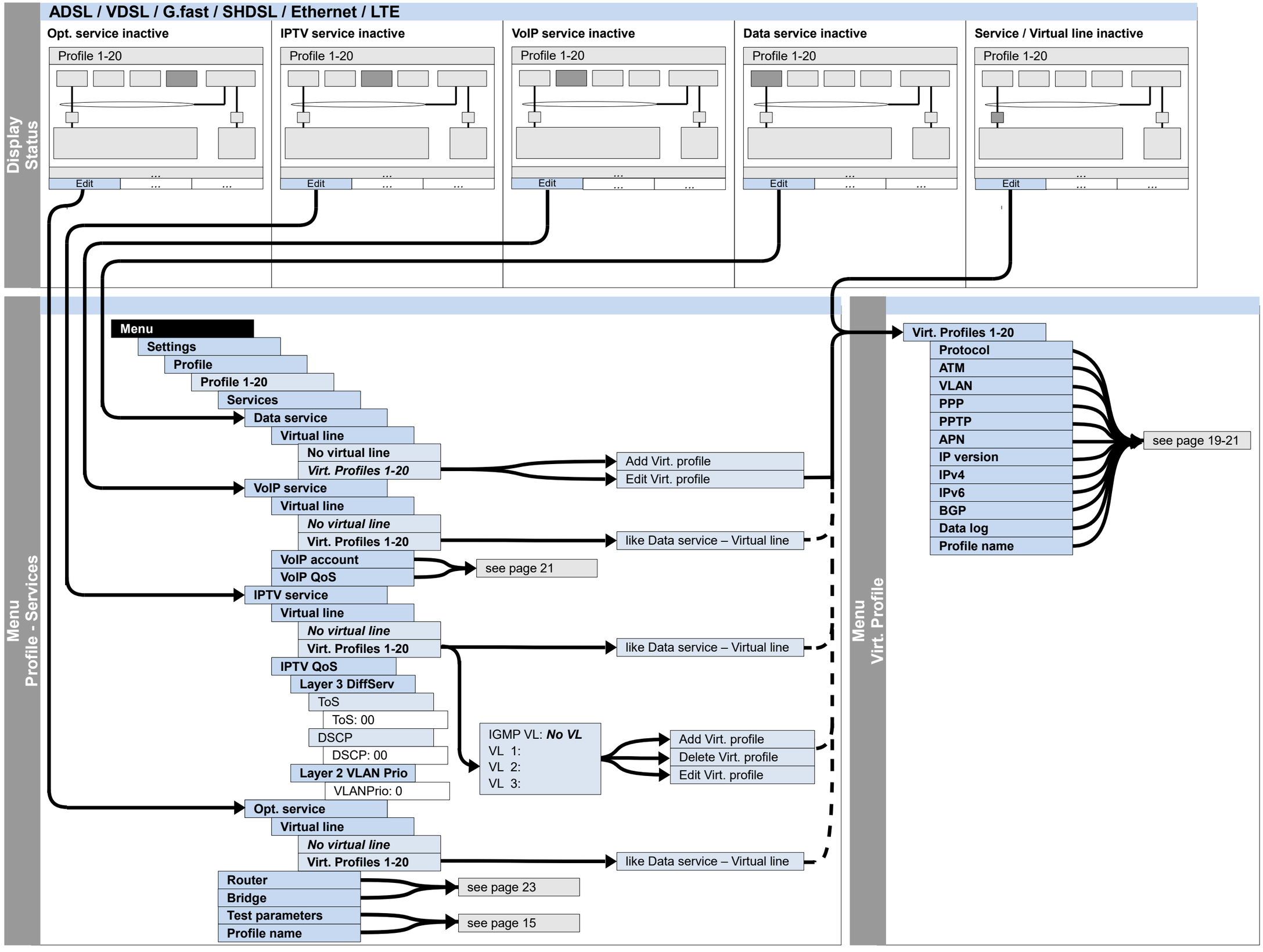
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Settings
Profile – Services (Data service, VoIP service, IPTV service, Opt. service), Virt. Profile

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Settings

Profiles – Virt. profile (Protocol, ATM, VLAN, PPP, PPTP, APN, Data log, Profile name)

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Profile 1-20
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Data service
Virtual line
Virt. Profiles 1-20
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IP
PPP
PPTP
ATM
Encapsulation
LLC
VC-MUX
Ethernet
No (PPPoA, ...)
Yes (PPPoE, EoA)
VLAN
PPP
PPTP
Server IP Adr.
0.0.0.0
APN
IP Version
IPv4
IPv6
BGP
Data log
Off
On
Profile name
Virt. Profil 1-20

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Menu VLAN

VLAN
VLAN Mode
No VLAN
1 VLAN tag
2 VLAN tags (QinQ)
1. VLAN tag (C-VLAN)
ID
ID: ***2***
Priority
Priority: ***0***
TPID
8100 Hex
88A8 Hex
2. VLAN tag (S-VLAN)
ID
ID: ***2***
Priority
Priority: ***0***
TPID
8100 Hex
88A8 Hex

Menu PPP

PPP
PPP Profiles 1-20
Edit profile
Presel. profile
User name
Password
Set IP
no
yes
Activation Delay
sec: ***2***
Profile name
PPP Profiles 1-20

Menu APN

APN
APN Profiles 1-5
Edit profile
Presel. profile
Access point
In-dialling nb.
****99#***
Profile name
APN Profile 1

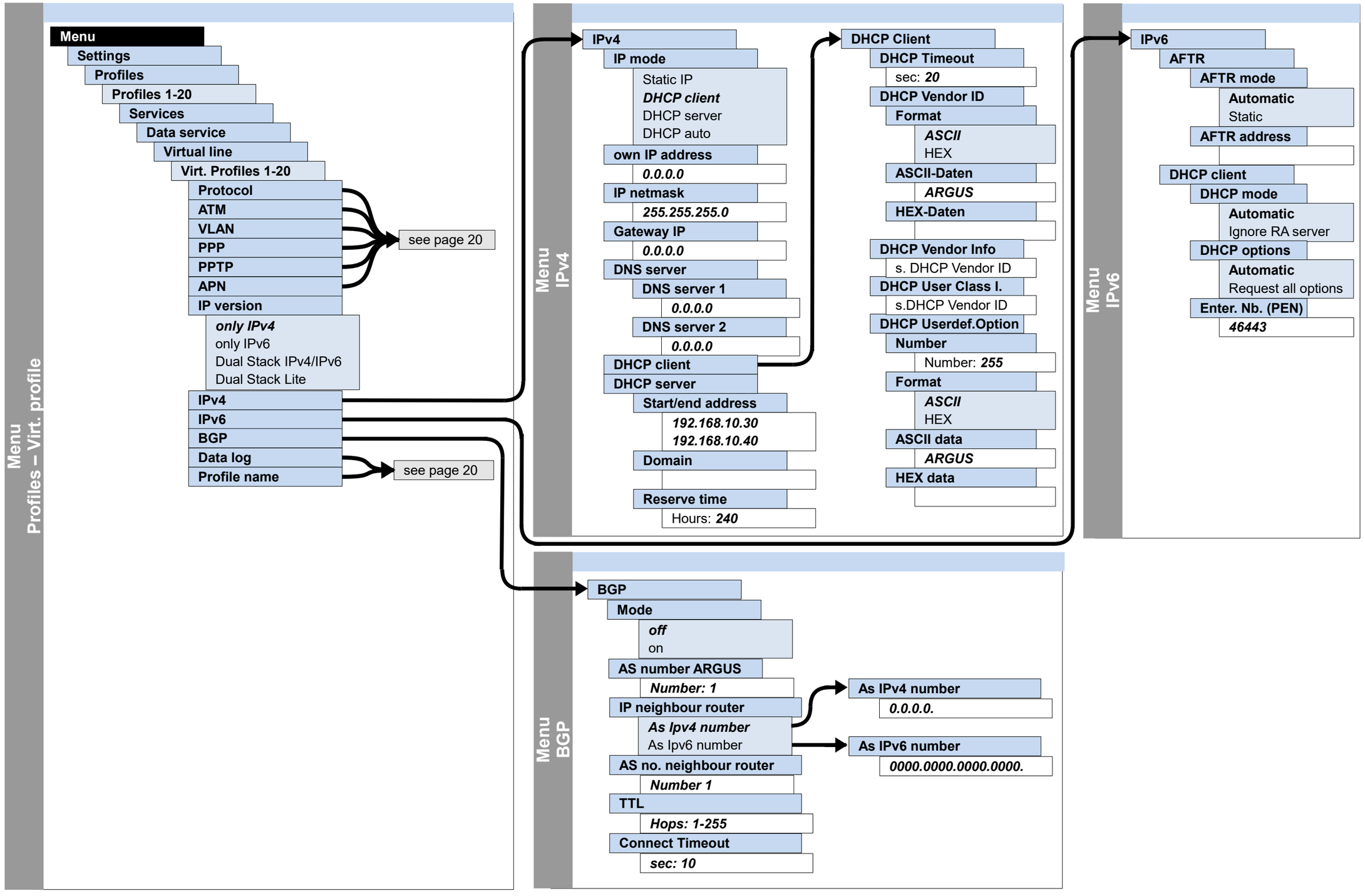
Note

On page 3 you get a survey on the protocols, which are supported on the various interfaces.

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Profiles – Virt. profile (IP version, IPv4, IPv6, BGP)

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Settings
Profiles – Services – VoIP service – VoIP account, VoIP QoS

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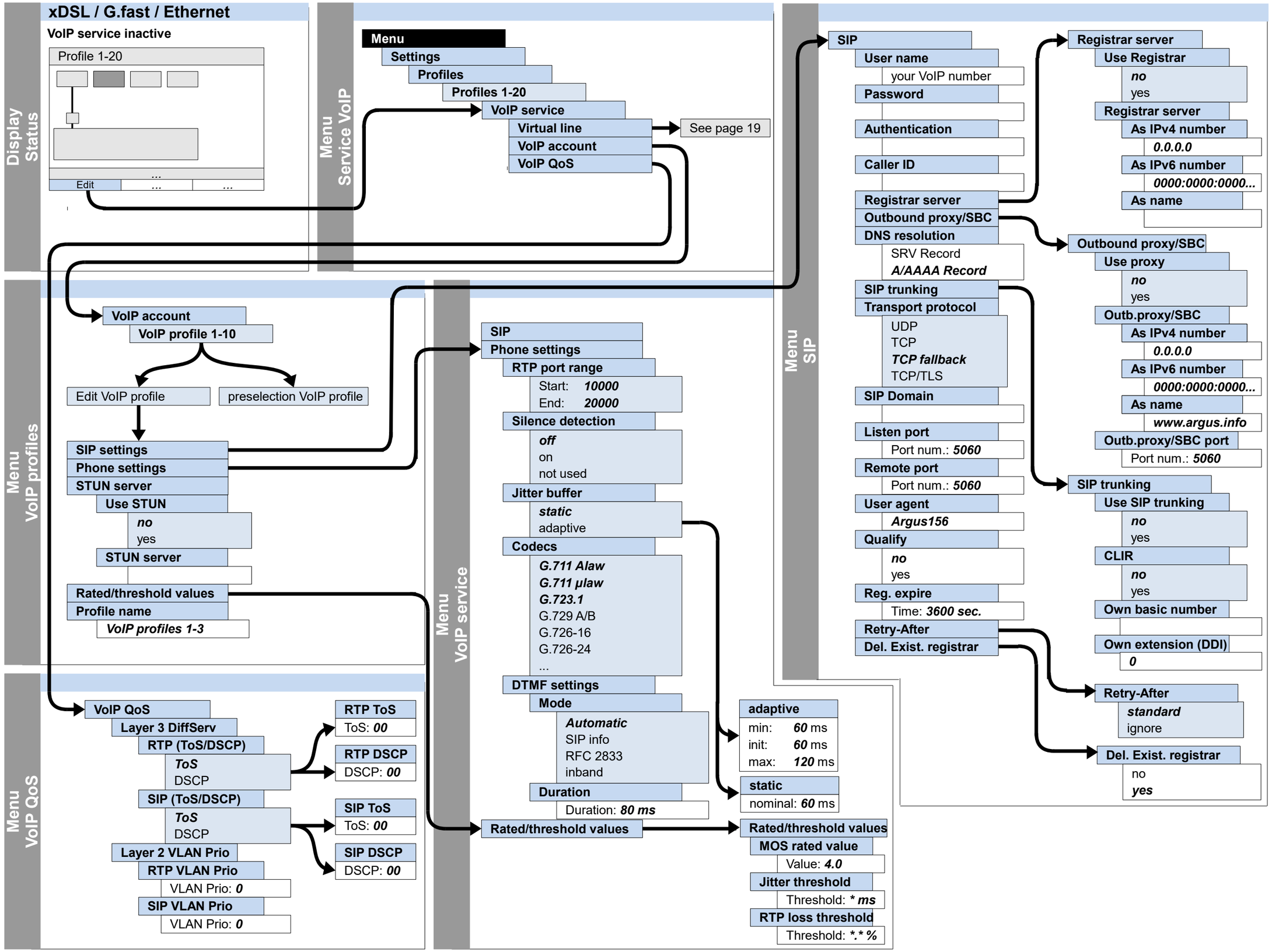
IP and ATM tests	page
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IPTV / passive /scan	29
Video on Demand	30
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ISDN tests	page
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Copper tests	page
Copper Box	40-41
Line scope, TDR	42

Other tests	page
Text br., Netw. scan	28
Loop	32
Connection (POTS)	12
Monitor (POTS)	38
PESQ	39
ETH cable tests	33

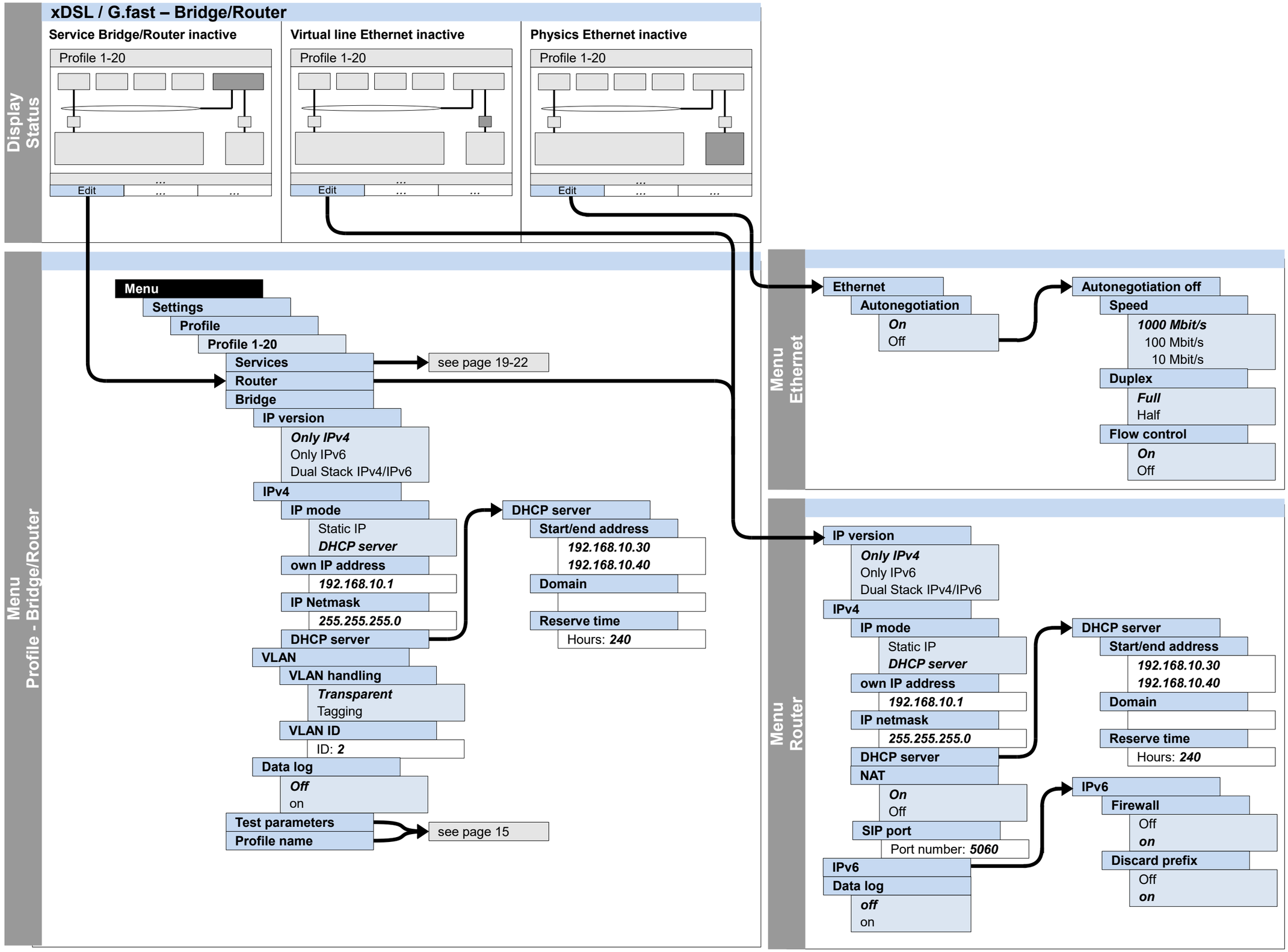
Others	page
Legend Protocol-overview	3
Hotkeys	4
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Settings
Profile – Bridge/Router (Ethernet, Router, Bridge)

Cross reference:

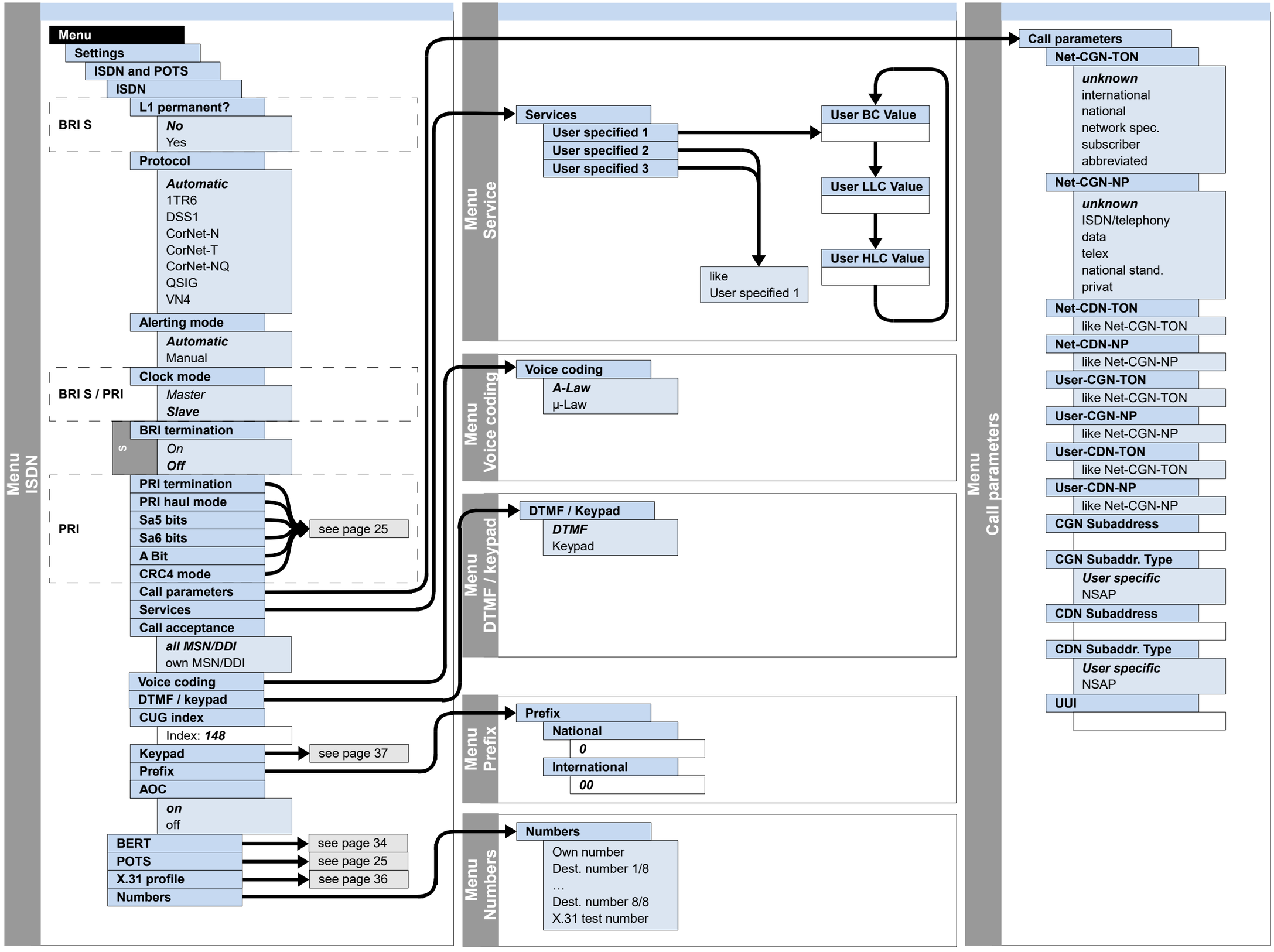
Menu	page
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Others	**page**
Legend Protocol-overview	3
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Test leads	43-46



Settings
ISDN (General, BRI S, BRI U)

Cross reference:

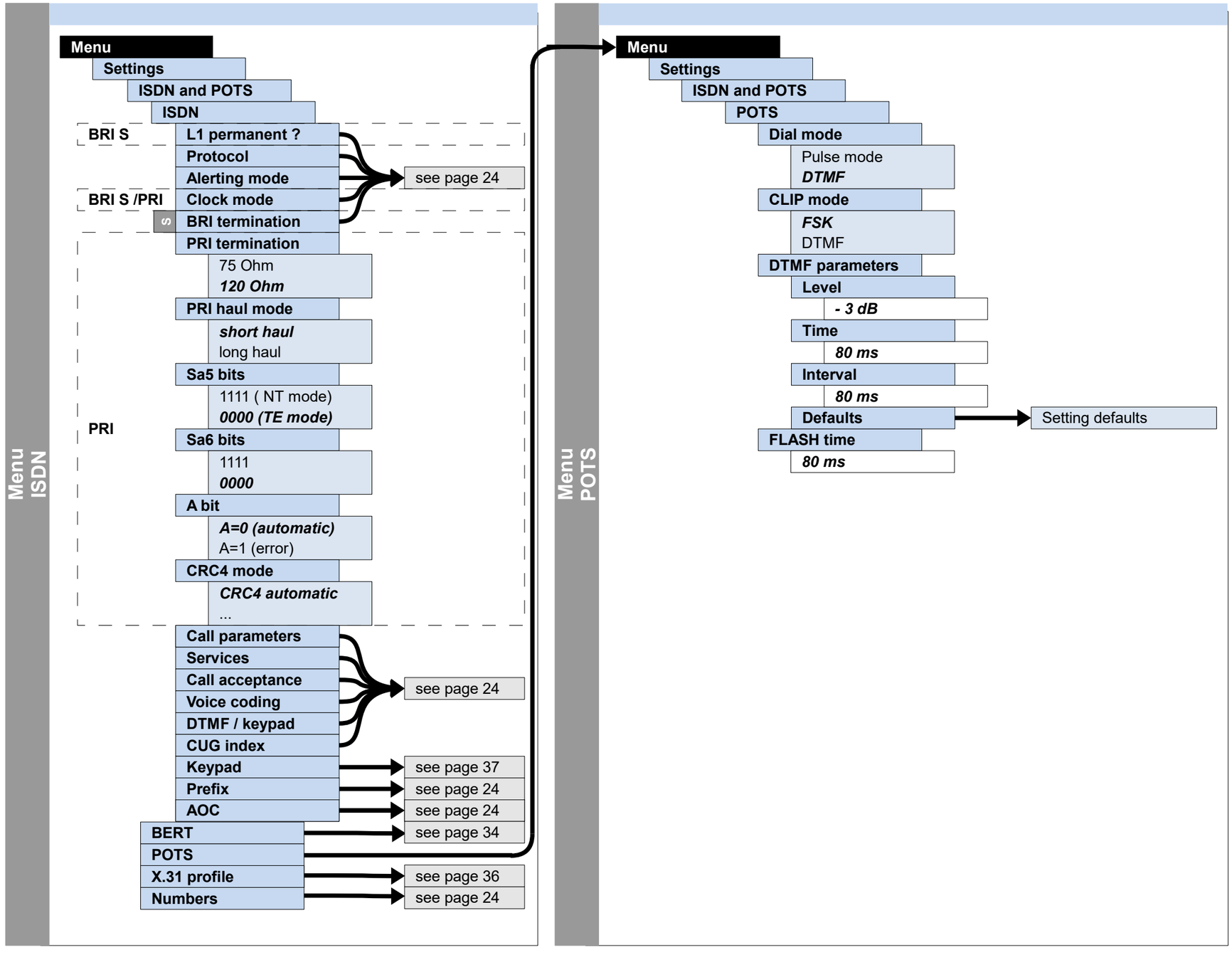
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Settings
ISDN (PRI), POTS

Cross reference:

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Hotkeys	4
Test leads	43-46



IP

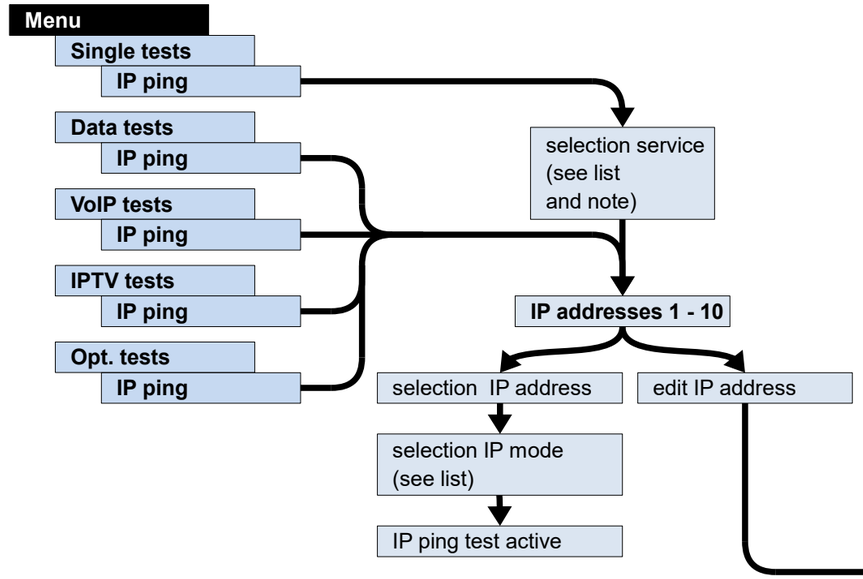
Configuration and operation
IP ping, Trace route

Cross reference:

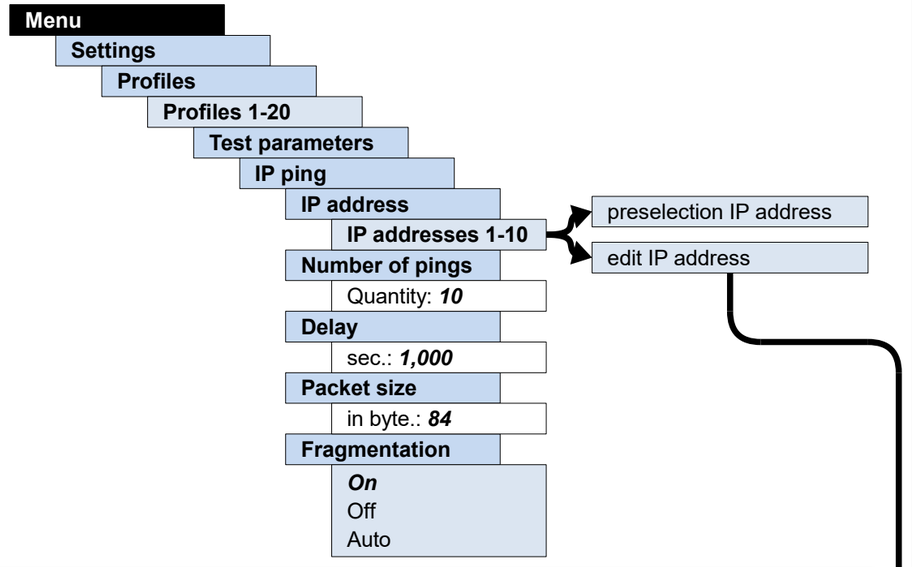
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IP ping Test operation

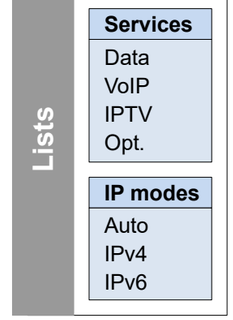
ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE



IP ping Test configuration

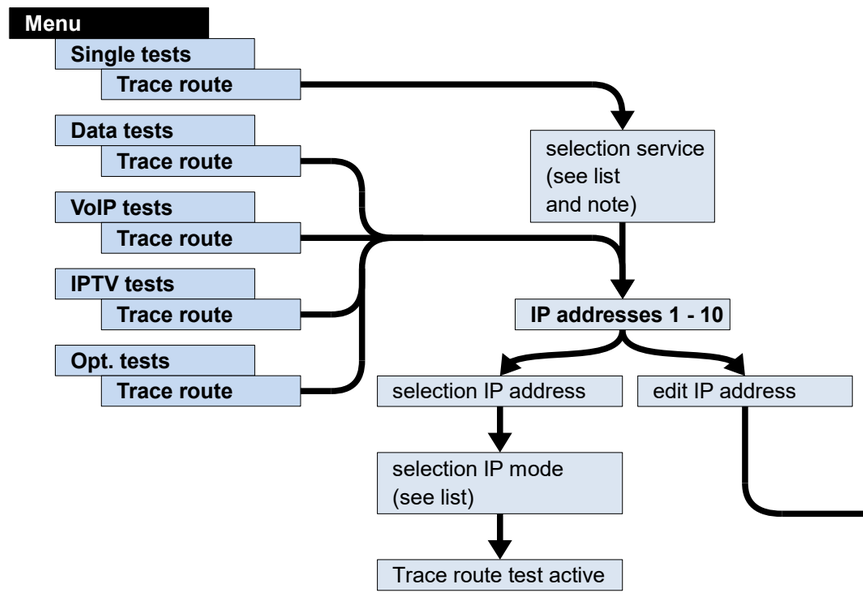


Lists

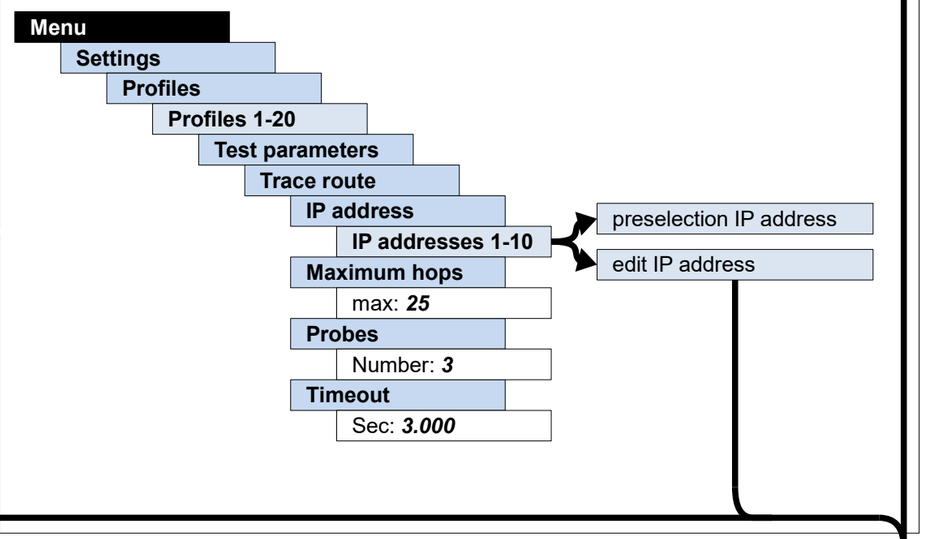


Trace route Test operation

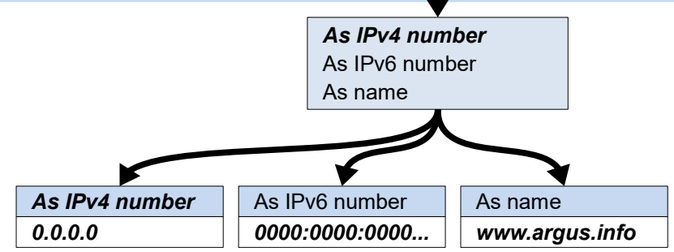
ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE



Trace route Test configuration



Menu IP address



Note

The number of services may vary depending on the configuration of the Data, VoIP, IPTV, VoD services. If a single service has been configured, the selection will be skipped.

IP

Configuration and operation
HTTP download/-upload, FTP download, FTP upload, FTP server

Cross reference:

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Others	**page**
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HTTP download/-upload Test operation

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

- **Menu**
  - **Single tests** → **HTTP down-/upl.**
  - **Data tests** → **HTTP down-/upl.**
  - **Opt. tests** → **HTTP down-/upl.**
  - → **Server profiles 1-10**
    - selection server profile → HTTP down-/upl. test active
    - edit server profile

HTTP download/-upload Test configuration

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

- **Menu**
  - **Settings**
  - **Profiles**
  - **Profiles 1-20**
  - **Test parameters**
  - **HTTP down-/upl.**
  - **Server profiles 1-10**
    - preselection server profile
    - edit server profile

Menu Server profile

- **Server profiles 1-10**
  - **Server**
  - **Download file name**
  - **Upload file name**
    - ***file***
  - **Upload file size**
    - ***100*** (MByte)
  - **User name**
  - **Password**
  - **Number of up-/downloads**
    - Number: ***3***
  - **Num. of paral. downl.**
    - Number: ***3***
  - **Profile name**
    - ***Server prof. 1-10***

FTP download Test operation

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

- **Menu**
  - **Single tests** → **FTP download**
  - **Data tests** → **FTP download**
  - **Opt. tests** → **FTP download**
  - → **Server profiles 1-10**
    - selection server profile → FTP download test active
    - edit server profile

FTP download Test configuration

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

- **Menu**
  - **Settings**
  - **Profiles**
  - **Profiles 1-20**
  - **Test parameters**
  - **FTP download**
  - **Server profiles 1-10**
    - preselection server profile
    - edit server profile

FTP upload Test operation

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

- **Menu**
  - **Single tests** → **FTP upload**
  - **Datatests** → **FTP upload**
  - **Opt. tests** → **FTP upload**
  - → **Server profiles 1-10**
    - selection server profile → FTP upload test active
    - Edit server profile

FTP upload Test configuration

ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

- **Menu**
  - **Settings**
  - **Profiles**
  - **Profiles 1-20**
  - **Test parameters**
  - **FTP upload**
  - **Server profiles 1-10**
    - preselection server profile
    - edit server profile

FTP server Test operation

ADSL / VDSL / G.fast / SHDSL / Ethernet

- **Menu**
  - **Single tests** → **FTP server**
  - **Data tests** → **FTP server**
  - **Opt. tests** → **FTP server**
  - → FTP server test active

Note

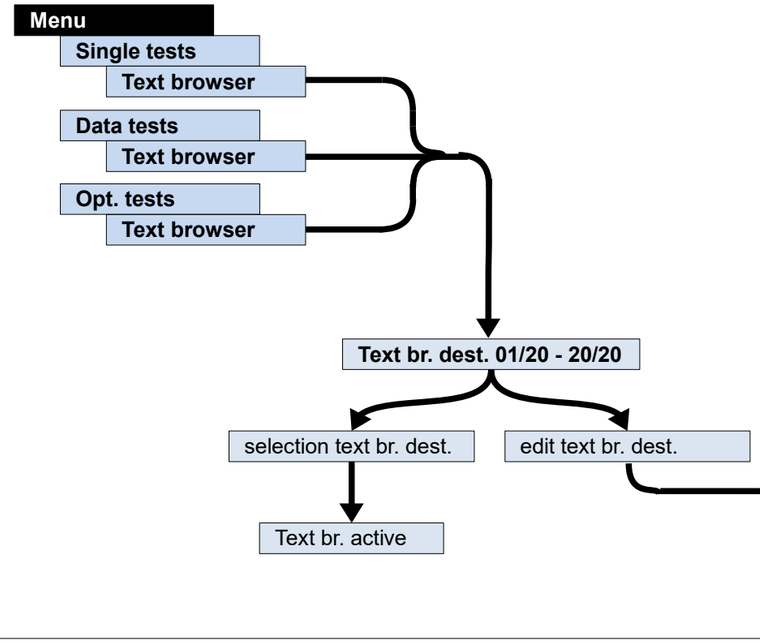
A test configuration of the FTP server is not necessary.

Cross reference:

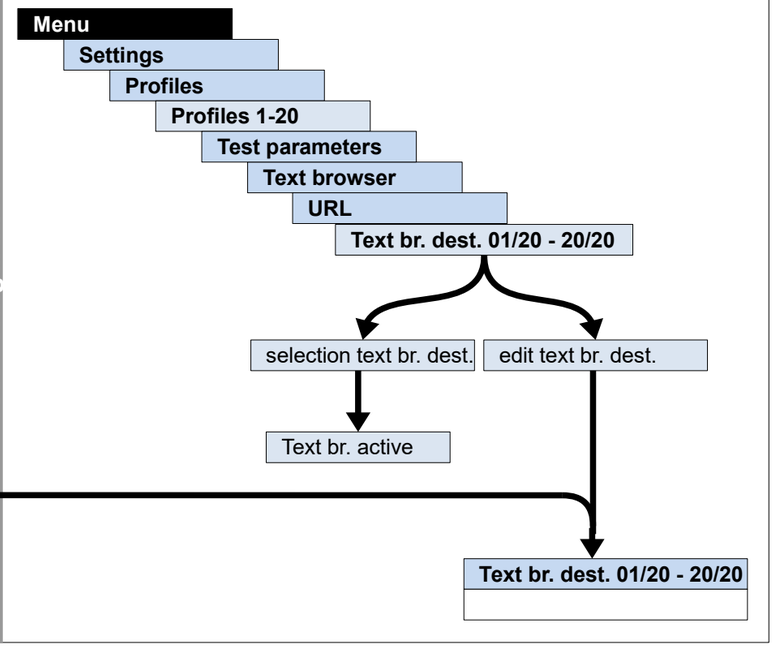
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ISDN tests	**page**
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ETH cable tests	33
Others	**page**
Legend Protocol-overview	3
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ADSL / VDSL / G.fast / SHDSL / Ethernet / LTE

Text browser Test operation

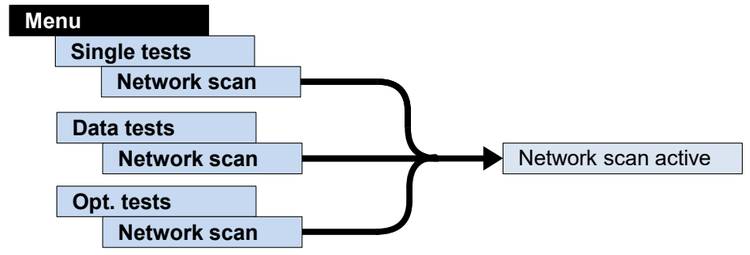


Text browser Test configuration

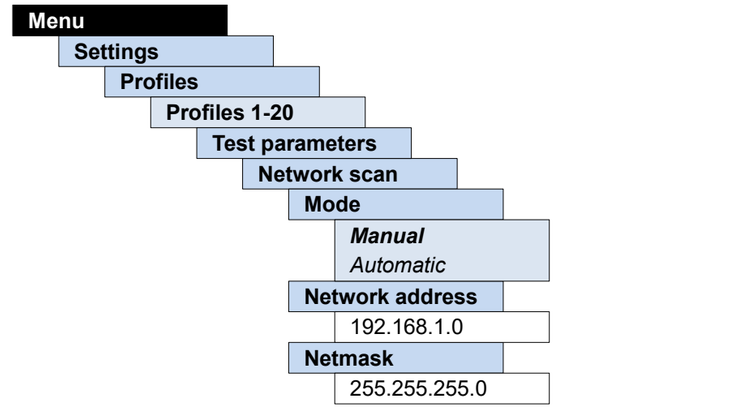


Ethernet

Network scan Test operation



Network scan Test configuration



IP

Configuration and operation
IPTV, IPTV passive, IPTV scan

Cross reference:

Menu	page
Access	6
Access wizard	7
Main menu	8, 12
Single tests Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests	8-12
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Battery (status,...)	8, 12
Help	8, 12

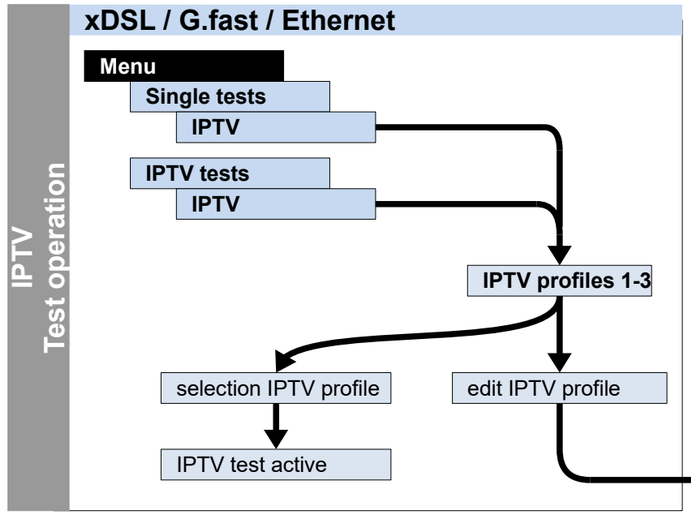
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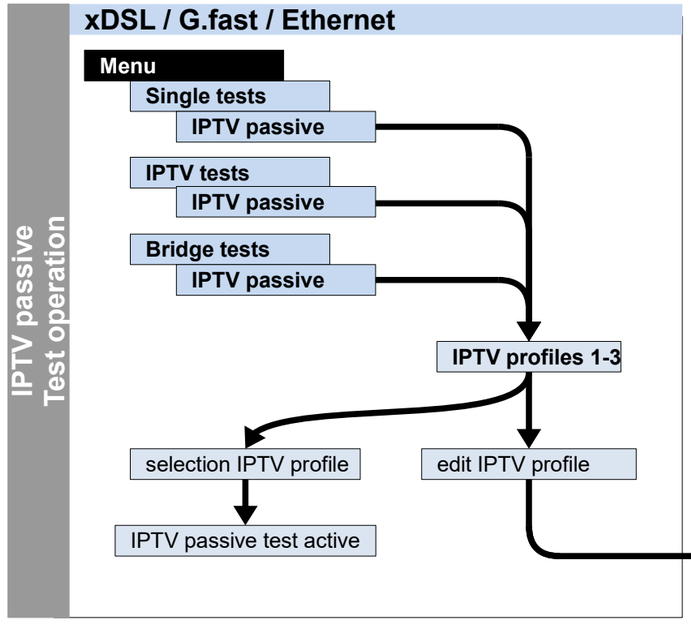
ISDN tests	page
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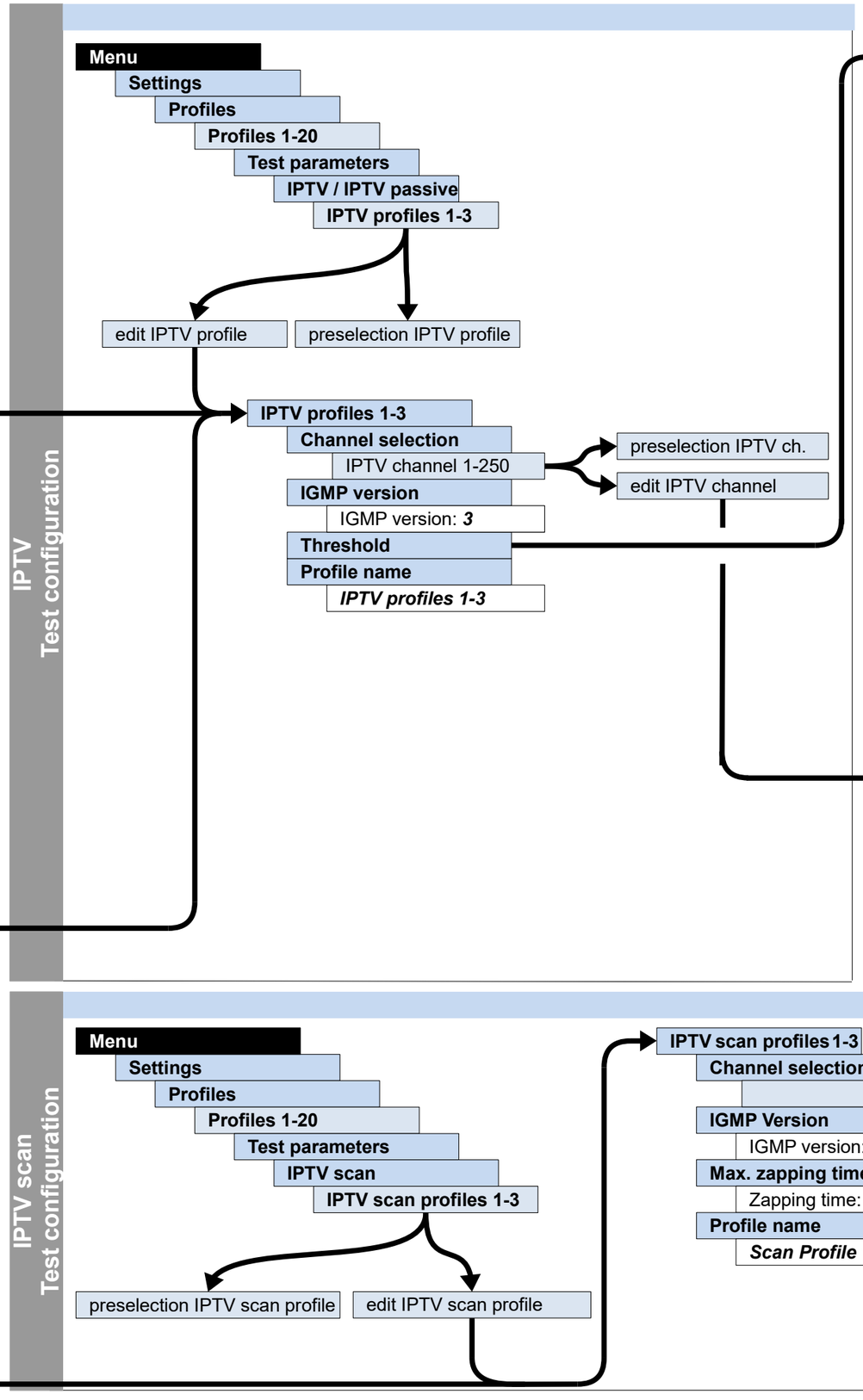
Copper tests	page
Copper Box	40-41
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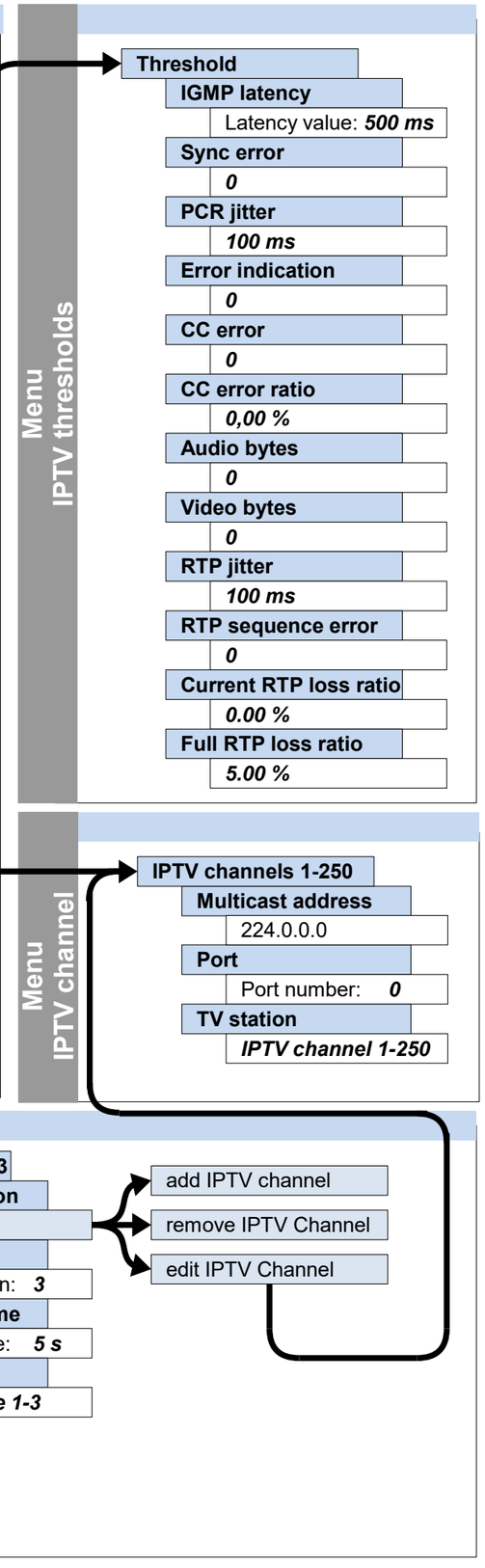
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Others	page
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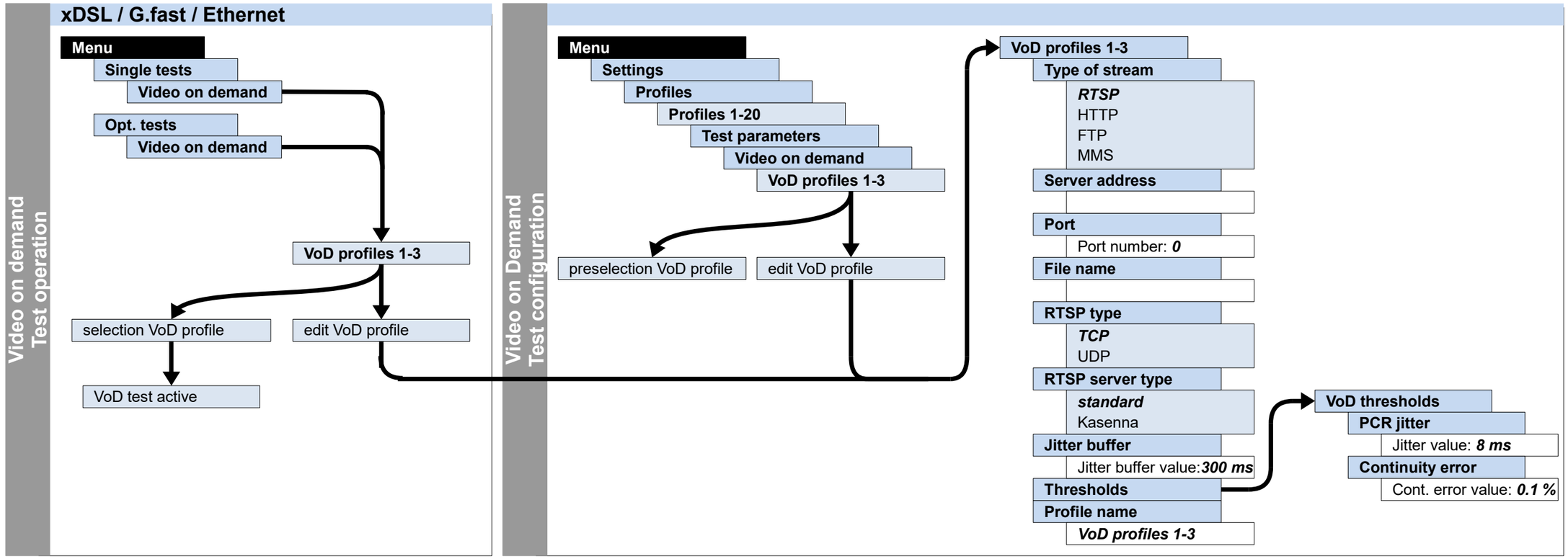






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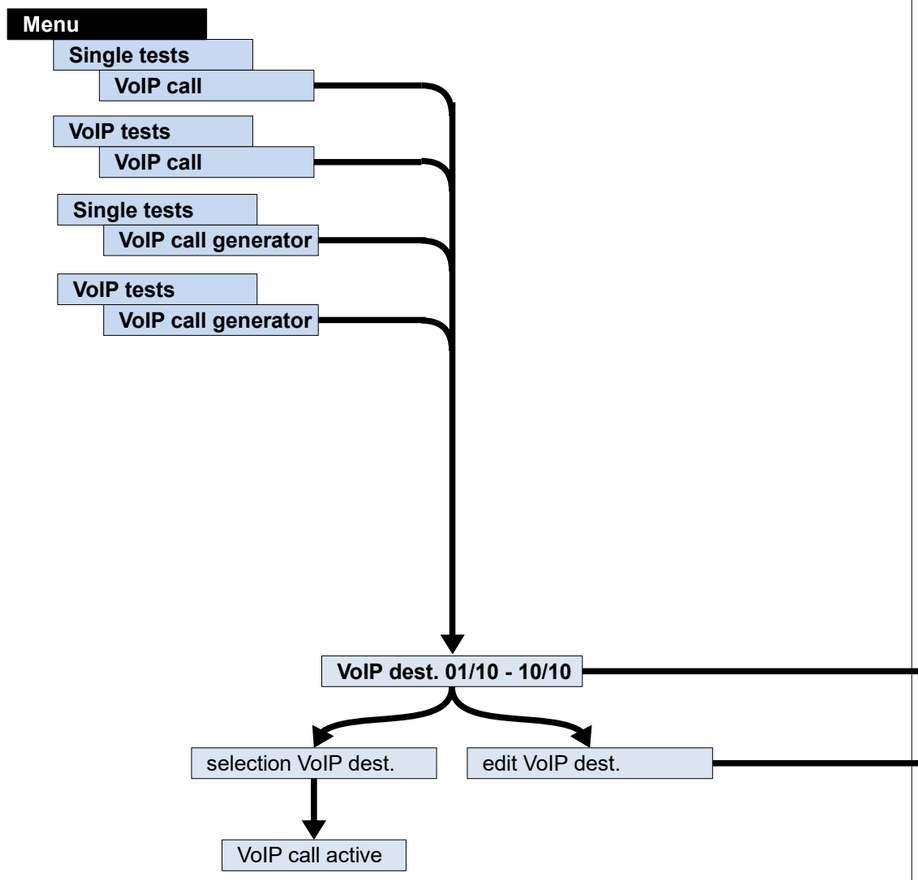


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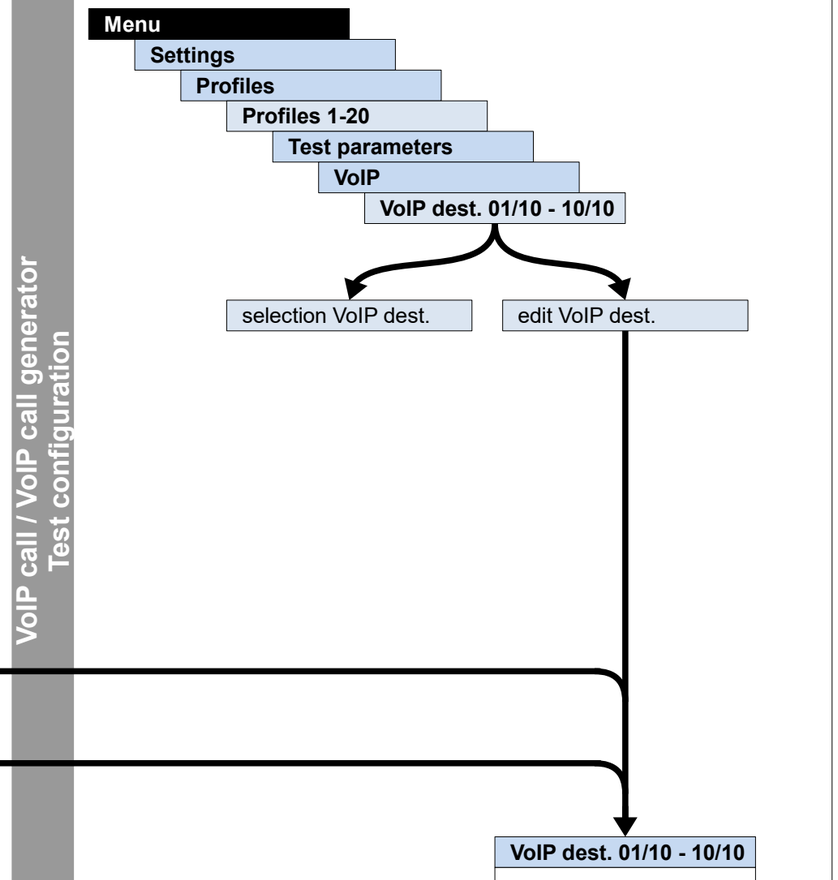
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VoIP call / VoIP call generator Test operation

ADSL / VDSL / G.fast / SHDSL / Ethernet

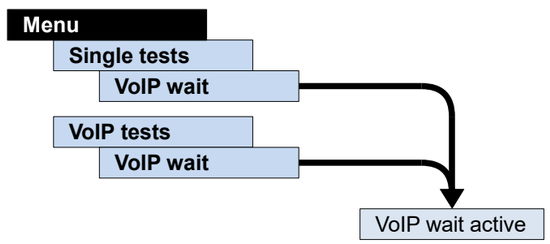


VoIP call / VoIP call generator Test configuration

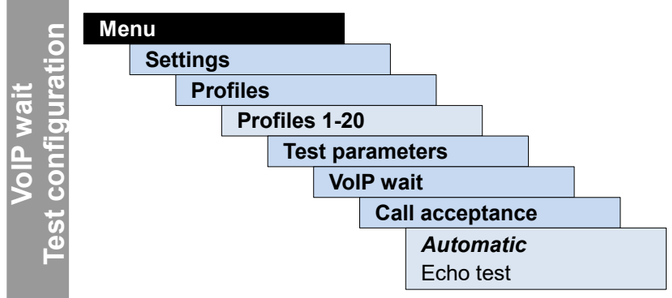


VoIP wait Test operation

ADSL / VDSL / G.fast / SHDSL / Ethernet



VoIP wait Test configuration



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SHDSL EFM/ATM / Ethernet IP based

Loop
Test operation

- **Menu**
  - **Single tests**
    - **Loop**
  - **Physic tests**
    - **Loop**

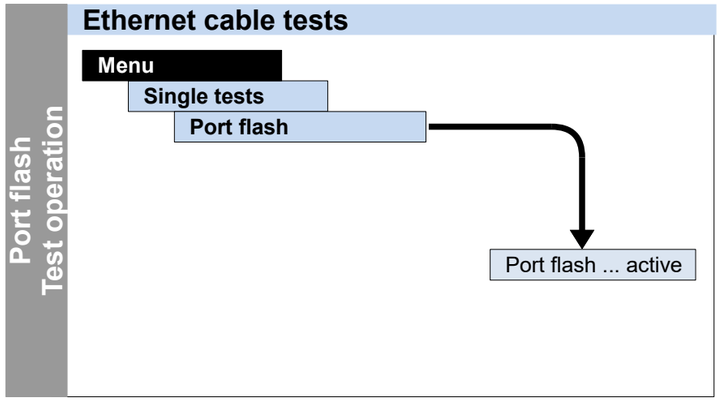
→ Loop active

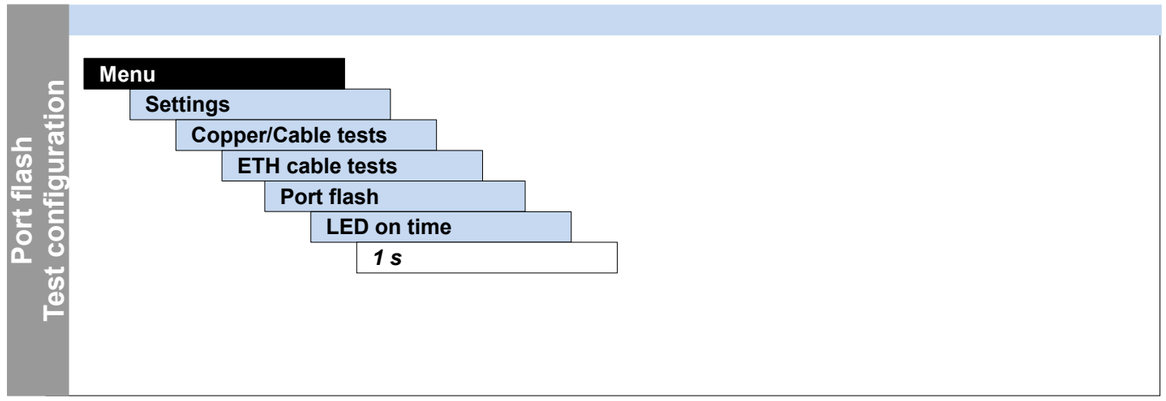
Loop
Test configuration

- **Menu**
  - **Settings**
    - **Profiles**
      - **Profiles 1-20**
        - **Test parameters**
          - **Loop**
            - **Layer 1**
            - **Layer 2**
              - **MAC mode**
                - ***Only own MAC***
                - Loop everything
              - **Own VPI/VCI**
                - VPI: ***1***
                - VCI: ***32***
              - **Own VLAN**
                - **VLAN mode**
                - ***No VLAN***
                - 1 VLAN tag
                - 2 VLAn tags (QinQ)
                - **1. VLAN tag (C-VLAN)**
                - **ID**
                - ID: ***2***
                - **Priority**
                - Priority: ***0***
                - **TPID**
                - ***8100 Hex***
                - 88A8 Hex
                - **2. VLAN tag (S-VLAN)**
                - **ID**
                - ID: ***2***
                - **Priority**
                - Priority: ***0***
                - **TPID**
                - 8100 Hex
                - ***88A8 Hex***
            - **Layer 3**
              - **IP version**
                - ***only IPv4***
                - only IPv6
              - **Own IP mode**
                - ***Static IP***
                - DHCP client
              - **Own IP address**
                - ***0.0.0.0***

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Settings	13-25
Device, Rem. acce.	14
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X.31	36
CF tests, Connect.	37
Time measuring Auto. Test	38
Copper tests	**page**
Copper Box	40-41
Line scope, TDR	42
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Cross reference:

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IPTV / passive /scan	29
Video on Demand	30
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ISDN tests	page
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X.31	36
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Other tests	page
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BERT Test operation

BRI S/U / PRI

TE ... / NT ...

Menu
- **Single tests**
  - **BERT**
    - **BERT start**
    - **BERT wait**
    - **B-channel loop**

→ Select number → Select service (see list) → Select B-channel → BERT active

BERT start → BERT wait active

BERT wait → B-channel loop wait active

BERT Test configuration

Menu
- **Settings**
  - **BERT**
    - **BERT time**: Durat.: ***00:01*** (hh:mm)
    - **Bit pattern S / U**: (2^15)-1 / ***(2^11)-1*** / User defined
    - **Pattern PRI**: like S/U
    - **Error level**: Threshold: ***1E-06***
    - **HRX value**: Value: ***15 %***

Bit pattern S / U → **User defined**: Enter (binary): 0000000000000000

Lists

Services
Speech
UDI 64 kBit
3.1 kHz audio
7 kHz audio
DFU-TA
Telephony ISDN
Fax G3
Fax G4
Mixed Mode
Teletex
Videotex
Telex
OSI
Telephony 7 kHz
Video telephony 1
Video telephony 2
User specified 1
User specified 2
User specified 3

MegaBERT pattern
2^15-1
2^15-1 inverse
2^20/QRSS
2^20/QRSS/inverse
Space (0000)
Mark (1111)

BRI S/U

Leased line

Menu
- **Single tests**
  - **BERT**
    - **BERT start**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **D-channel**
    - **BERT wait**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **D-channel**
    - **B-channel loop**
      - **B-channel**
      - **all framed**

B-channel → B-chan. select → B-channel loop wait active

B-channel (64k) → B-chan. select → BERT active

B-channel (128k) → B-chan. select → BERT wait active

D-channel → B-chan. select → BERT active

PRI

Leased line

Menu
- **Single tests**
  - **BERT**
    - **BERT start**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **MegaBERT fr.**
      - **MegaBERT unfr.**
      - **D-channel**
    - **BERT wait**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **MegaBERT fr.**
      - **MegaBERT unfr.**
      - **D-channel**
    - **B-channel-loop**
      - **B-channel**
      - **all framed**
      - **all unframed**

B-channel → B-chan. select → B-channel loop wait active

B-channel (64k) → B-chan. select → BERT active

B-channel (128k) → B-chan. select → 1. B-chan. select → 2. B-chan. select → BERT wait active

MegaBERT fr. → B-chan. select → 1. B-chan. select → 2. B-chan. select → Pattern select (see list) → BERT wait active

MegaBERT unfr. → B-chan. select → 1. B-chan. select → 2. B-chan. select → Pattern select (see list) → BERT active

D-channel → B-chan. select → BERT active

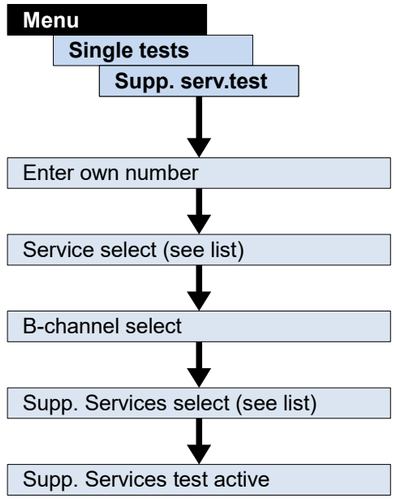
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Supplementary services Test operation

BRI S/U / PRI

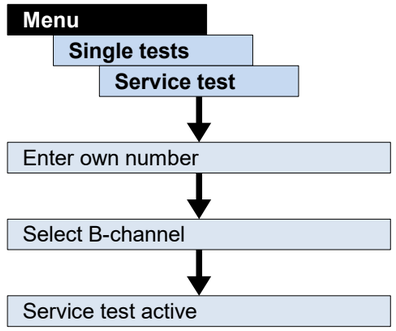
TE P-MP / TE P-P



Service test Test operation

BRI S/U / PRI

TE ... / NT ...



Lists

Services

- Speech
- UDI 64 kBit
- 3.1 kHz audio
- 7 kHz audio
- DFU-TA
- Telephony ISDN
- Fax G3
- Fax G4
- Mixed Mode
- Teletex
- Videotex
- Telex
- OSI
- Telephony 7 kHz
- Video telephony 1
- Video telephony 2
- User specified 1
- User specified 2
- User specified 3

Supp. services

- TP test
- HOLD test
- CLIP test
- CLIP / CLIR
- COLP/COLR
- DDI test
- MSN test
- CF test
- CFU
- CFB
- CFNR
- CW test
- CCBS test
- CCNR test
- MCID test
- 3PTY test
- ECTtest
- CUG test
- CD test
- AOC test
- SUB test
- UUS test

Cross reference:

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BRI S/U / PRI

TE P-MP / TE P-P

Menu
Single tests
X.31 test
X.31 profiles 1-3

Select X.31 profile
Edit X.31 profile

Automatic
Manual

Enter TEI
Enter LCN
Edit / select number
X.31 test active

Looking for TEI
Edit / select number
X.31 test active

X.31 test Test operation

Menu
Settings
X.31 profiles
X.31 profiles 1-3

Edit X.31 profile
Select X.31 profile

Packet number
Packet count: ***10***
TEI
TEI: **
LCN
LCN: ***1***
Packet size
16 Byte
32 Byte
64 Byte
128 Byte
256 Byte
Agree packet size
No
Yes
Window size
Agree window size
No
Yes
Throughput
Agree throughput
No
Yes
User data
CUG
No
Yes
CUG-Index
Index: ***1***
D-Bit
Local
End to end
Facilities
Profilename
X.31 profiles 1-3

X.31 test Test configuration

Menu Throughput

Throughput
75 bit/s
150 bit /s
300 bit/s
600 bit/s
1200 bit/s
2400 bit/s
4800 bit/s
9600 bit/s

Menu Windowsize

Windowsize
1 packet
2 packets
3 packets
4 packets
5 packets
6 packets
7 packets

Menu User data

User data
Format
ASCII
HEX
ASCII data
ASCII data 1-3
HEX data
HEX data 1-3
Edit ASCII data
Edit HEX data
ASCII data 1-3
HEX data 1
01 00 00 00 45 43 48 4F
HEX data 2
01 00 00 00 30 30 47 47
HEX data 3

Menu Facilities

Facilities
Facility 1-3
Edit Facility
Facility 1-3

Cross reference:

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IP and ATM tests	page
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CF interrogation Test operation

BRI S/U

TE P-MP / TE P-P

Menu
→ **Single tests**
→ **CF interrogation**
→ CF interrogation test active

CF activation Test operation

BRI S/U

TE P-MP / TE P-P

Menu
→ **Single tests**
→ **CF activation**
→ Select service (see list services (CF))
→ Select Cfx type (see list Cfx types)
→ Enter own number
→ Enter / select remote number
→ CF activation test active

CF delete Test operation

BRI S/U

TE P-MP / TE P-P

Menu
→ **Single tests**
→ **CF delete**
→ Select service (see list services (CF))
→ Select Cfx type (see list Cfx types)
→ Enter own number
→ CF delete test active

Phone / connection Test operation

BRI S/U / PRI

TE … / NT …

Menu
→ **Single tests**
→ **Phone / connection**
→ **Overlap sending** / **Enblock** / **Redialing** / **Keypad dial**
→ **Keypad info 1-3**
→ Edit Keypad Info / Select keypad info
→ Edit / select number
→ Select service (see list)
→ Select B-channel
→ connection test active

Leased line

Menu
→ **Single tests**
→ **Phone / connection**
→ Select B-channel
→ Connection test active

Menu Keypad

Menu
→ **Settings**
→ **ISDN**
→ **Keypad**
→ **Keypad info 1-3**
→ Select keypad info / Edit keypad info
→ **Keypad info 1-3**

Lists

Services

speech
IDU 64 kBit
3.1 kHz audio
7 kHz audio
IDU TA
Telephony ISDN
Fax G3
Fax G4
Mixed Mode
Teletex
Videotex
Telex
OSI
Telephony7 kHz
Videotelephony 1
Videotelephony 2
User specified 1
User specified 2
User specified 3

Services (CF)

All
Spch
DFU
A3K1H
A7kHz
Tel31
TTX
FaxG4
ViSyB
ViTel
FaxG3
Tel7k

CFx types

CFU
CFB
CFNR

Cross reference:

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Time measuring Test operation

BRI S/U

TE … / NT … / Leased line

Menu → Single tests → Time measuring → Conn. setup time / B-channel delay / Interchannel delay

Conn. setup time	B-channel delay	Interchannel delay
Edit / select number	Edit / select number	Edit / select number
Select service (see list)	Select service (see list)	Select service (see list)
	Select B-channel	Select B-channel
Conn. setup test active	B-Channel delay test active	Interchannel delay test active

PRI

TE … / NT …

Menu → Single tests → Time measuring → Conn. Setup time

Edit/ select number → Select service (see list) → Select B-channel → Conn. setup test active

List

Services
Speech
IDU 64 kBit
3.1 kHz audio
7 kHz audio
IDU TA
Telephony ISDN
Fax G3
Fax G4
Mixed Mode
Teletex
Videotex
Telex
OSI
Telephony 7 kHz
Videotelephony 1
Videotelephony 2
User specified 1
User specified 2
User specified 3

Listening Test operation

BRI S

Monitor

Menu → Listening → Net side (NT) / Terminal (TE) / Both sides → Select B-channel → Listening active

PRI

Monitor

Menu → Listening → Net side (NT) / Terminal (TE) → Select B-channel → Listening active

Monitor Test operation

BRI S / PRI / POTS

Monitor

Menu → Start monitor → Monitor active

Auto test Test operation

BRI S / BRI U / PRI

TE P-MP / TE P-P

Menu → Test reports → Test no. 1-50 → Start

Enter test name → Enter own number → Edit / select number → Select service (see list) → Auto test active

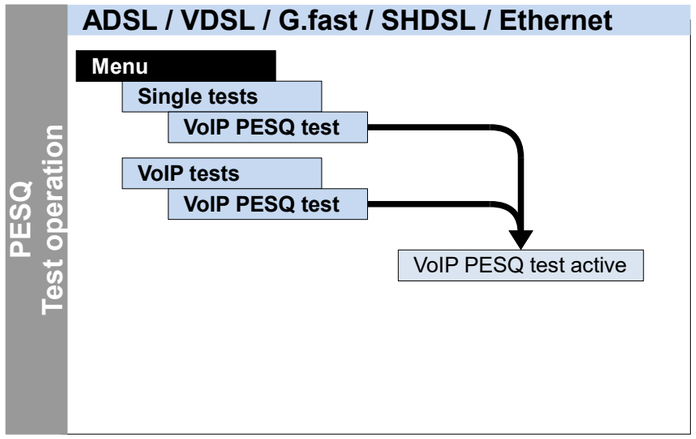
Leased line

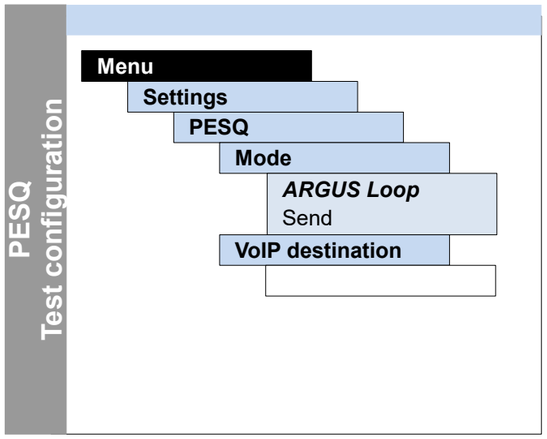
Menu → Test reports → Test no. 1-50 → Start

Enter test name → Select B-channel → Auto test active

Cross reference:

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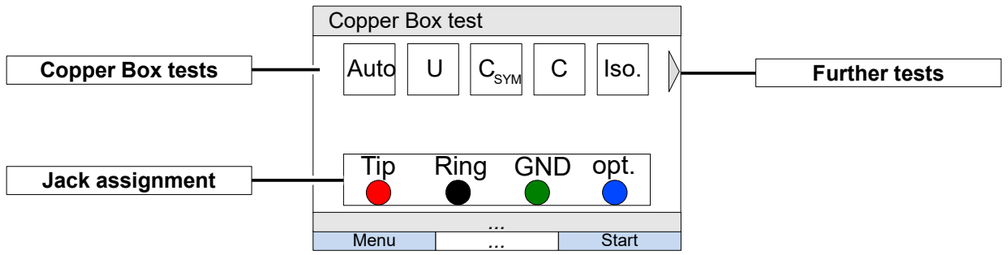


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Legend status

ARGUS Copper Box



Menu hotkeys

ARGUS Copper Box

Key	Auto test	Voltage measurement	Capacitve symmetry measurement	Capacitance measurement	Isolation resistance measurement	Resistance symmetry measurement	Loop resistance measurement	DC current measurement	Unbalance	Near-end crosstalk	Termination detection	Fast cable check	Remote control of loop assistant
0	-	Reset	-	Reset		-	Reset				-		
1	Auto test prof.	-											
2	-												
3	-				Polarity	-							
4	-				Meas. range	-							
5	-				Meas. voltage	-							
6	Wire types	-	Wire types		-	Wire types	-						
7	QR code	-											
8	-		Susceptibility				-						
9	-	Display mode	-	Display mode		-	Display mode		-				
⎍	-												
#	-	Input resistance	-										
✆	Information bell												
✳ then 0	-												
✳ then 1	Copper Box info												
✳ then 2	-												
✳ then 3	-												
✳ then 6	-												
✳ then 7	Store	-											
✳ then #	Remote kit command	-											
	Remote kit												

Note

The hotkeys can vary depending on the selected sockets.

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Copper Box

Copper Box Test operation

Menu
Single tests
Copper Box
Auto
U
CSym
C
Iso.
RSym
R
I=
LCL
NEXT
Sig.
Fast cable check
Rem.

→ Copper Box active

→ Select command → Send remote kit command and wait for response

Auto test
U | C | Iso. | R | ...
Tip | Ring | GND | opt.
...
Setting | Insert | Delete

→ Insert a new test and select the jack assignment

Lists

Commands
Short circuit a/T-b/R
Exchange connect
Short circ. A/T-b/R-GND
Open circuit
Tone mode
Port 1 loop 3 sec.
Port 1+3 connect
P1+2 & 3+4 connect
Port 1+4 connect
Port 1+4 loop
Port 4 loop 3 sec.
Port 2+4 connect
Port 3+4 connect

Copper Box
*1 **Auto test profiles**
*2 **Polarity**
Standard
Invers
*2 **Measurement range**
Autom. (to 1 GΩ)
25 MΩ - 1 GΩ
2 MΩ - 500 MΩ
200 kΩ - 50 MΩ
100 Ω - 5 MΩ
*2 **Measurement voltage**
High voltage (105 V)
Low voltage (8 V)
*3 **Wire types** → see page 43
*4 **Susceptibility**
Robust for ext. voltage
Insecure (fast)
*5 **Display mode**
Normal display mode
Min/Max display mode
*8 **Input resistance** → see above
Remote kit command → see command
Remote kit
*5 **Information bell**
off
on

Auto test profile
Autotest
Auto test sequence
Notice
Profile name
Autotest

*8 **Input resistance**
High-resistance
Low-resist. (200 kΩ Last)
*2 **Polarity**
Measurement range
Measurement voltage
*4 **Susceptibility**
*6 **Start function**
Automatic start
Pause: manual loop
*7 **Command**
Short circuit a/T-b/R
Exchange connect
Short circ. a/T-b/R-GND
Open circuit
Tone mode
...
Waiting time
100 ms

Remote kit
TX91x + 900/905 Remote
TX91x (orange)
900/905 Remote (blue)

Copper Box Test configuration

Menu
Single tests
Copper Box
Auto
U
CSym
C
Iso.
RSym
R
I=
LCL
NEXT
Sig.
Fast cable check
Rem.

Note

*1 = Auto test
*2 = Iso.
*3 = Autotest, CSym, C, RSym, R
*4 = CSym, C, Iso., RSym, R,
*5 = U, C, Iso., R, I=, LCL, NEXT
*6 = RSym, R
*7 = Rem.
*8 = U

Cross reference:

Menu	page
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Access wizard	7
Main menu	8, 12
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Settings	13-25
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VoIP call / call generator /wait	31
ISDN tests	**page**
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X.31	36
CF tests, Connect.	37
Time measuring Auto. Test	38
Copper tests	**page**
Copper Box	40-41
Line scope, TDR	42
Other tests	**page**
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Loop	32
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PESQ	39
ETH cable tests	33
Others	**page**
Legend Protocol-overview	3
Hotkeys	4
Test leads	43-46

Line scope Test operation

Copper tests

Menu
Single tests
Line scope
Line scope active

TDR Test operation

Copper tests

Menu
Single tests
TDR
TDR active

TDR Test configuration

Menu
Settings
Copper/Cable tests
Copper tests
Wire types

Selection wire type

Edit wire type

Speed of propagation
98.9
Line resistance
80 Ohm/km
Capacitance
39 nF/km
Name
PE 0.5 AWG24

V/2 in m/µs
98.9

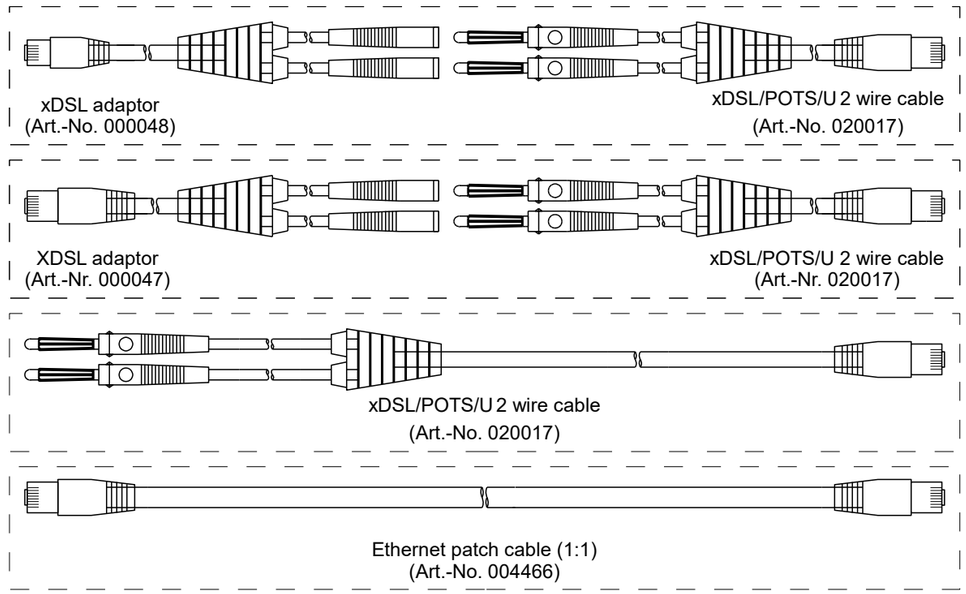
VoP in %
66.0

Test leads and pin assignments
ADSL, VDSL, G.fast

Cross reference:

Menu	page
Access	6
Access wizard	7
Main menu	8, 12
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ADSL / VDSL / G.fast

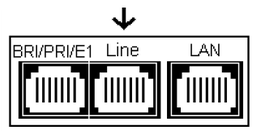


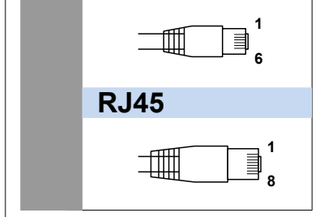
RJ11	Ban.	RJ45
3	rd	4
4	blk	5

RJ45	Ban.	RJ45
4	rt	4
5	sw	5

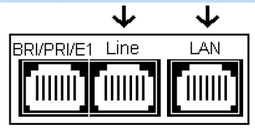
Ban.	RJ45
rd	4
blk	5

RJ45	RJ45
1-8	1-8

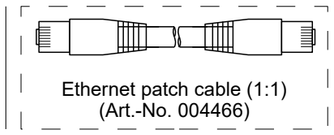




ADSL / VDSL / G.fast – Bridge / Router



RJ45	RJ45
1-8	1-8

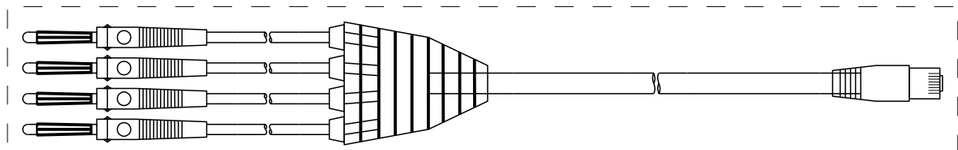


Test leads and pin assignment
SHDSL, Ethernet

Cross reference:

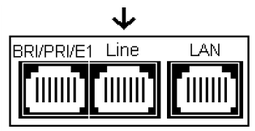
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Access wizard	7
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Others	**page**
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SHDSL 2 / 4 wire

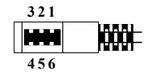


SHDSL 4 wire cable
(Art.-No. 000076)

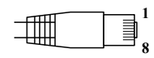
Ban.	RJ45
rd (L2)	3
rd (L1)	4
blk (L1)	5
blk (L2)	6



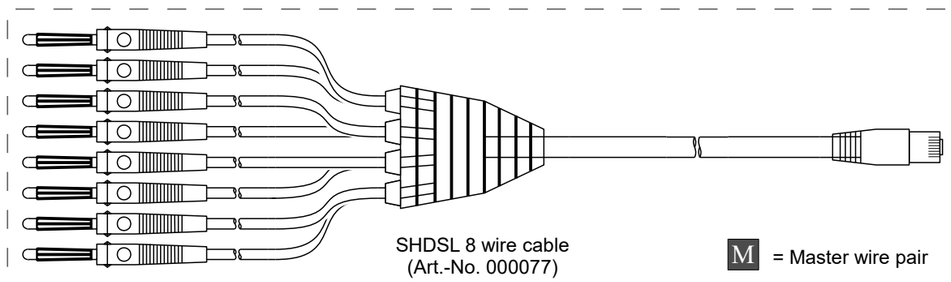
TAE



RJ45



SHDSL 2 / 4 / 6 / 8 wire

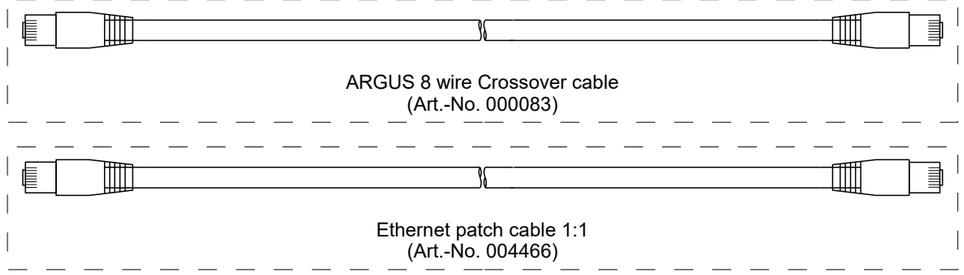


SHDSL 8 wire cable
(Art.-No. 000077)

M = Master wire pair

	Ban.	Line	RJ45
M	rd	Pin 4	4/5
M	blk	Pin 5	
	rd	Pin 3	3/6
	blk	Pin 6	
	rd	Pin 1	1/2
	blk	Pin 2	
	rd	Pin 7	7/8
	blk	Pin 8	

SHDSL 8 wire



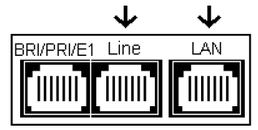
ARGUS 8 wire Crossover cable
(Art.-No. 000083)

Ethernet patch cable 1:1
(Art.-No. 004466)

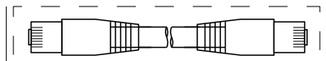
Line	RJ45	RJ45
1	1/2	4/5
2	4/5	1/2
3	3/6	3/6
4	7/8	7/8

RJ45	RJ45
1-8	1-8

SHDSL 2 / 4 / 6 / 8 wire – bridge / router

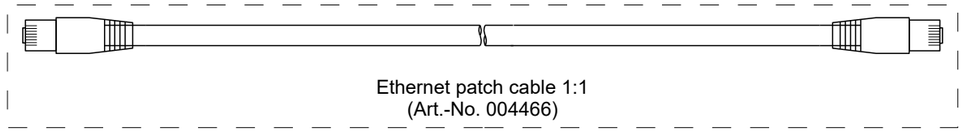


RJ45	RJ45
1-8	1-8



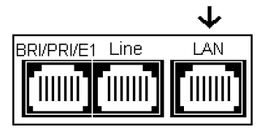
Ethernet patch cable 1:1
(Art.-No. 004466)

Ethernet

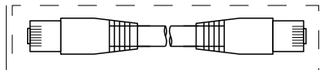


Ethernet patch cable 1:1
(Art.-No. 004466)

RJ45	RJ45
1-8	1-8



RJ45	RJ45
1-8	1-8



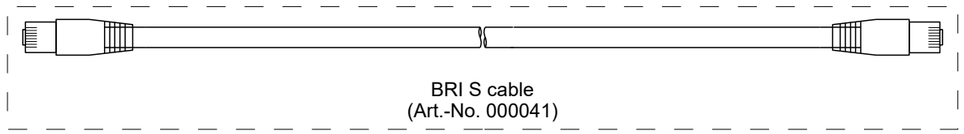
Ethernet patch cable 1:1
(Art.-No. 004466)

Test leads and pin assignments
BRI S, BRI U, PRI, POTS

Cross reference:

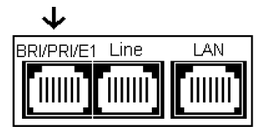
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BRI S

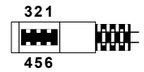


BRI S cable
(Art.-No. 000041)

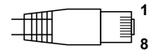
RJ45	RJ45
3/6	3/6
4/5	4/5



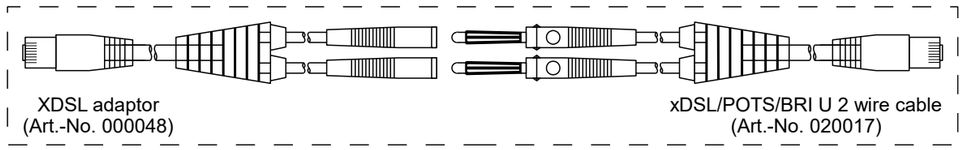
TAE



RJ45

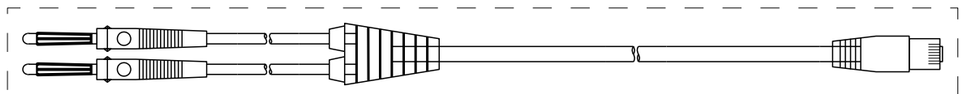


BRI U / POTS



XDSL adaptor
(Art.-No. 000048)

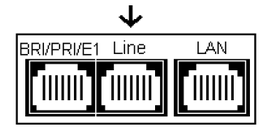
xDSL/POTS/BRI U 2 wire cable
(Art.-No. 020017)



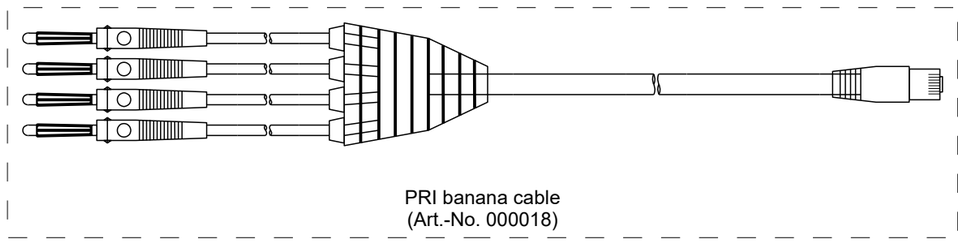
xDSL/POTS/BRI U 2 wire cable
(Art.-No. 020017)

RJ11	Ban.	RJ45
3	rd	4
4	blk	5

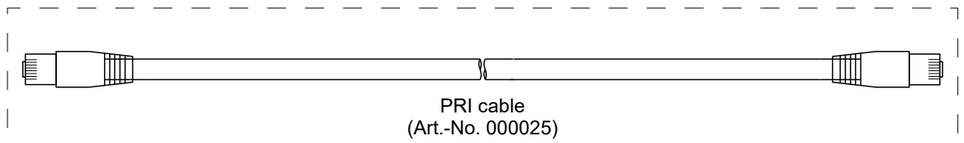
Ban.	RJ45
rd	4
blk	5



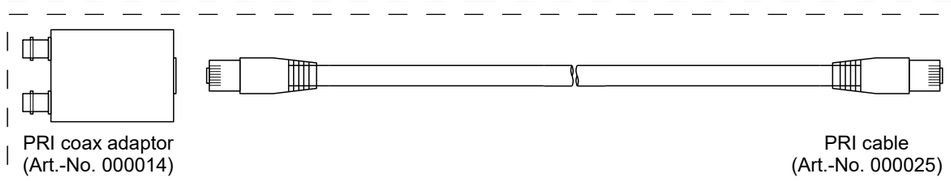
PRI



PRI banana cable
(Art.-No. 000018)

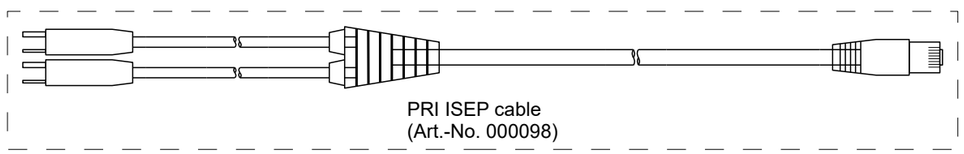


PRI cable
(Art.-No. 000025)



PRI coax adaptor
(Art.-No. 000014)

PRI cable
(Art.-No. 000025)



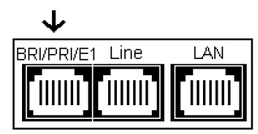
PRI ISEP cable
(Art.-No. 000098)

Ban.	RJ45
rd 1	8
rd 2	1
blk 1	7
blk 2	2

RJ45	RJ45
1/2	1/8
4/5	2/7

BNC	RJ45	RJ45
TX Out	1/2	1/8
RX In	4/5	2/7

ISEP	RJ45
1/2	1/8
4/5	2/7

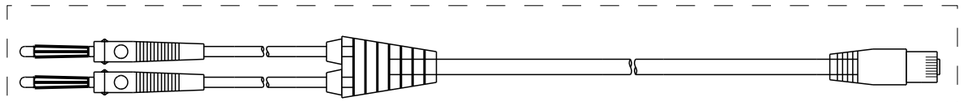


Test leads and pin assignments
Copper tests

Cross reference:

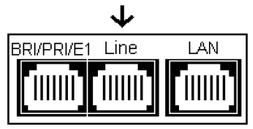
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Copper tests: Line scope / TDR



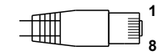
xDSL/POTS/BRI U 2 wire cable
(Art.-No. 020017)

Ban.	RJ45
rd	4
blk	5



The copper tests are performed using pin 4/5 of the line interface. Alternatively, the test can Be carried out with every Other test leads that is Using pin 4/5.

RJ45

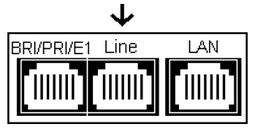


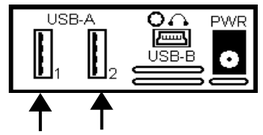
Copper tests: Line scope



Active Probe II
(Art.-No. 015091)

Ban.	RJ45
blk	4
blk	5





The Active Probe II needs to be powered by the USB-A interface. The power supply can be enabled in the settings or according tests.

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