

Запуск БС Huawei

Настройка FTP на Windows 7 по ссылке
<https://www.q2w3.ru/nastrojka-ftp-servera-iis-na-windows-7/>

или в LMT во вкладке FTP tool (сертификат SSL не создаем), брандмауэр отключаем.

Каталог FTP не надо прятать в дебри диска, оптимально в корне, например
e:\FTP\

Для Windows 10 настройки аналогичны, но лучше Win7 т.к на лицензионной обновленной Win 10 надо постоянно отключать брандмауэр и defender или настраивать исключения.

Ip для подключения **192.168.0.49**

Для 15 релиза и старше:

Логин: Admin

Пароль: hwbs@com

Для релиза 16 пароль Y5\$7Kc@u#\$tr&LhF (после первого включения требует смены, добавляем в конце 11 получаем **Y5\$7Kc@u#\$tr&LhF11**)

Для DBS

командой SET NODE переводим в BTS5900A (нужный тип оборудования выставится после заливки выданного конфига, BTS5900A выбираем для настроек безопасности FTP порта управления VBU)

далее командой SET FTPSCLT выставляем всё как на картинке

The screenshot displays the web interface of a BTS5900-GL device. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1617802812344`. The interface includes a navigation tree on the left with categories like MML Commands, System Management, Configuration Management, License Management, Application Management, and File Management. The main content area shows the execution of the `SET FTPSCLT` command, resulting in a successful operation. Below the command history, the configuration parameters for FTPSCLT are displayed:

```
SET FTPSCLT: ENCRYPMODE=Auto, SPTSTATEFWL=Yes, SSLCERTAUTH=No, MINDHLEN=DH_0, POLICYID=0, TLSSECCSSW=OFF;
```

The configuration parameters are as follows:

Parameter	Value
Transport Encrypted Mode	Auto(Auto)
Support State Firewall	Yes(Yes)
Support SSL Certificate Authentication	No(No)
Minimum DH length of FTPS	DH_0(Auto Diffie-Hellma)
Policy ID	0
TLS Secure Cipher Suite Switch	OFF(OFF)

Обновление софта:

Проверяем залитую версию софта командой LST SOFTWARE, если отличается от BTS3900_5900 V100R016C10SPC130 – обновляем, если ок – переходим к заливке конфига.

При правильно настроенном FTP сервере, **FTP Server IP** это локальный IP компьютера 192.168.0.* (тот что прописали в свойствах IPv4 сетевой карты для подключения к BTS)
User Name – имя пользователя ссозданного для FTP, **Password** – пароль пользователя ссозданного для FTP

В Software Version пишем полное название софта: BTS3900_5900 V100R016C10SPC130

В маршруте до софта корневую папку FTP не учитываем, т.е если полный маршрут e:\ftpserver\BTS3900_5900 V100R016C10SPC130\, в Directory Name прописываем BTS3900_5900 V100R016C10SPC130\

Пример команды(**пропущен пароль, не забываем вводить**):

DLD SOFTWARE: MODE=IPV4, IP="192.168.0.20", USR="Rus", DIR="BTS3900_5900 V100R016C10SPC130\", SWT=SOFTWARE, SV="BTS3900_5900 V100R016C10SPC130", ATL=GBTS&eNodeB;

Если БС 2G+LTE то софт заливаем для GBTS и eNodeB (вкладка Application Type List)

The screenshot displays the web interface for a BTS5900A device. The main area shows the execution of the 'DLD SOFTWARE' command, which was successful. The command details are as follows:

- Command (F5): DLD SOFTWARE
- IP Mode: IPV4(IPv4)
- FTP Server IP: 192.168.0.20
- User Name: Rus
- Directory Name: BTS3900_5900 V100R016C10SPC130\
- Software Type: SOFTWARE(Software)
- Software Version: BTS3900_5900 V100R016C10SPC130
- Guage Option: Y(Guage)
- Download by Config Flag: CFG(Download by config)
- Delay Download Flag: YES(Delay Download)
- Application Type List: GBTS&eNodeB

The command history shows the following output:

```
Session ID = 65563
Info = Speed: NA, Remaining: NA, State: Data Integrity Check
--- END
+++ 0 2021-03-09 15:38:44
O&M #321
%MDL SOFTWARE: MODE=IPV4, IP="192.168.0.20", USR="Rus", PWD="*****", DIR="BTS3900_5900 V100R016C10SPC130\", SWT=SOFTWARE, SV="BTS3900_5900 V100R016C10SPC130", ATL=GBTS&eNodeB;%
RETCODE = 0 Progress report, Operation succeeded.
Report Type = Download Software
Status = Success
Session ID = 65563
--- END
```

Активация софта

Если БС 2G+LTE то софт активируем для GBTS и eNodeB (вкладка Application Type List)

ACT SOFTWARE: OT=NE, SWT=SOFTWARE, SV="BTS3900_5900 V100R016C10SPC130", ATL=GBTS&eNodeB;

The screenshot displays the web interface for a BTS5900A device. The browser address bar shows the URL: `https://192.168.0.49/platform/frmwork/view/index.html?2020.03.02.09&time=1615274308281`. The page title is "BTS5900A". The navigation menu includes "MML", "Alarm/Event", "Batch", "Trace", "Monitor", "Device Maintenance", and "Self Test". The "Device Maintenance" tab is active, showing a "Common Maintenance" session with ID 65564. The command history shows the execution of the "ACT SOFTWARE" command with the following parameters: `OT=NE, SWT=SOFTWARE, SV="BTS3900_5900 V100R016C10SPC130", ATL=GBTS&eNodeB`. The status is "Progressing" at 17% completion. The command history also shows the command being executed: `ACT SOFTWARE: OT=NE, SWT=SOFTWARE, SV="BTS3900_5900 V100R016C10SPC130", ATL=GBTS&eNodeB; RETCODE = 0 Progress report, Operation succeeded.`

Navigation Tree:

- MML Commands
 - System Management
 - Version Management
 - Remove Patch(RMV PATCH)
 - List Patch on NE(LST PATCH)
 - Display Patch on Boards(DSP P
 - Download Patch(DLD PATCH)
 - Activate Patch(ACT PATCH)
 - Roll Back Patch(RBK PATCH)
 - List Software Version(LST SOF
 - Download Software(DLD SOFTV
 - Activate Software(ACT SOFTW
 - Remove Software(RMV SOFTV
 - Activate Application Software(A
 - Supplement Software(SPL SOF
 - Roll Back Software(RBK SOFTV
 - Download NE Multi-Version Soft
 - List Session Information(LST SI
 - Display NE Software Managemen
 - Set Loading Control(SET LOAD
 - Display Loading Control Status(
 - List Current Software Version(L
 - Display Board Version Informat
 - List Downloaded BootROM Vers
 - List Software Version of New H
 - List Upgrade Result(LST UPGRV
 - Upgrade Chip Software(ACT CI
 - Display Board Software Startup
 - Display Board Process Informa
 - Display Software Signature CRL
 - Query Base Station Upgrade Pl
 - Set Base Station Upgrade Polic
 - Display Chip Version Informatio
 - Time Management
 - Configuration Management
 - License Management
 - Application Management
 - File Management
 - CB Management
 - Configuration Rights Management
 - Batch Command Processing

После активации софта LMT будет урезанный!

Активация нормального LMT (здесь, выше и далее указаны параметры моего сервера, меняем данные на свой) – вводим команду SPL SOFTWARE -> кнопка Assist -> заполняем поля (DIR – 'папка где расположен софт, аналогично обновлению):

SPL SOFTWARE: MODE=IPV4, IP="192.168.0.20", USR="Rus", PWD="*****", DIR="BTS3900_5900 V100R016C10SPC130\", SDL=YES;

Перезапускаем LMT.

The screenshot displays the LMT web interface for a BTS5900A device. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?M2020.07.03.13&time=1615276727326`. The page title is "BTS5900A". The user is logged in as "admin" and the status is "Disconnected".

The "MML" section is active, showing a navigation tree on the left with "Supplement Software(SPL SOFTWARE)" selected. The main content area displays the execution details of the command:

```
Common Maintenance (Alt+C) | Operation Records (Alt+R) | Help (Alt+N)
Progress = 100%
Session ID = 65539
--- END
+++ 0 2021-03-09 16:03:43
OM #80
%%SPL SOFTWARE: MODE=IPV4, IP="192.168.0.20", USR="Rus", PWD="*****", DIR="BTS3900_5900 V100R016C10SPC130\", SDL=YES%%
RETCODE = 0 Progress report, Operation succeeded.
Report Type = Supply Software
Status = Success
Session ID = 65539
--- END
```

At the bottom, the "Command History" shows the command: `SPL SOFTWARE: MODE=IPV4, IP="192.168.0.20", USR="`. The "Command (F5)" field contains `SPL SOFTWARE`, with "Assist" and "Exec" buttons next to it. The "Auto Scroll" checkbox is checked, and a "Clear All (F6)" button is visible.

Загрузка файла конфигурации

DLD CFGFILE: MODE=IPV4, IP="192.168.0.20", USR="Rus", PWD="*****", DIR="BTS_77_17351_DLN\", FN="CFGDATA", ENCRYPTMODE=UNENCRYPTED;

File Name забивать полностью, с расширением - CFGDATA.XML

Корневой каталог FTP в Directory Name как и при заливке софта не указываем.

Остальное как на картинке ниже.

The screenshot shows the web interface of a BTS5900A device. The browser address bar displays the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615277129827`. The page title is "BTS5900A". The navigation menu includes "MML", "Alarm/Event", "Batch", "Trace", "Monitor", "Device Maintenance", and "Self Test". The "MML" tab is active, and the "Navigation Tree" on the left shows the "File Management" section expanded, with "Download Backup Configuration" selected. The main content area displays the command: `DLD CFGFILE: MODE=IPV4, IP="192.168.0.20", USR="Rus", PWD="*****", DIR="BTS_77_17351_DLN\", FN="CFGDATA", ENCRYPTMODE=UNENCRYPTED;`. Below the command, there is a "Command History" section and a "Command (F5)" section with the following fields:

IP Mode	IPV4(IPv4)	FTP Server IP	192.168.0.20
User Name	Rus	Password	*****
Directory Name	BTS_77_17351_DLN\	File Name	CFGDATA
File Type	XML(XML Format)	Area Flag	STANDBY(Standby)
Gauge Option	Y(Send Progress)	Encrypted Mode	UNENCRYPTED(UNENCR)
Compress Flag	UNCOMPRESSED(Uncomj)	Forced Download Flag	FALSE(FALSE)

Активация файла конфигурации:

ACT CFGFILE: EFT=AFTER_RESET;

The screenshot displays the web interface for the BTS5900A system. The browser address bar shows the URL: `https://192.168.0.49/platform/frmwork/view/index.html?2020.07.03.13&time=1615277129827`. The page title is "BTS5900A". The navigation menu includes "MML", "Alarm/Event", "Batch", "Trace", "Monitor", "Device Maintenance", and "Self Test". The user is logged in as "admin" with the status "Connected".

The main content area is divided into several sections:

- Navigation Tree:** A sidebar menu with categories like "MML Commands", "System Management", "Version Management", "Time Management", "Configuration Management", "License Management", "Application Management", and "File Management".
- Common Maintenance (Alt+C):** A section showing the execution of the "ACT CFGFILE" command. The status is "Success" and the session ID is "65541". The command history shows: `ACT CFGFILE: EFT=AFTER_RESET;`.
- Command History:** A text area displaying the command: `ACT CFGFILE: EFT=AFTER_RESET;`.
- Command (F5):** A text input field containing the command: `ACT CFGFILE`.
- Mode:** A dropdown menu set to "XML(XML Mode)".
- Effect Type:** A dropdown menu set to "AFTER_RESET(After Resc)".
- Product Type:** A dropdown menu.

At the bottom of the interface, there are buttons for "Save Result", "Download Report", "Auto Scroll", and "Clear All (F6)". The system time is shown as "2021-3-9 16:14:25".

Перезапуск БС после активации файла:

RST BTSNODE: FOCRST=YES;

The screenshot displays the web interface for a BTS5900A base station. The browser address bar shows the URL: `https://192.168.0.49/platform/frmwork/view/index.html?2020.07.03.13&time=1615277129827`. The page title is "BTS5900A". The user is logged in as "admin" with the status "Connected". The current time is "2021-3-9 16:19:21".

The interface includes a navigation menu with options: "MML", "Alarm/Event", "Batch", "Trace", "Monitor", "Device Maintenance", and "Self Test". The "MML" tab is active, showing a list of operations in the "Navigation Tree" on the left. The selected operation is "Reset Base Station(RST BTS)".

The main content area displays the results of the "Reset Base Station" operation:

```
Common Maintenance (Alt+C) | Operation Records (Alt+R) | Help (Alt+N) | Settings
```

```
RETICODE = 0 Progress report, Operation succeeded.
Report Type = Activate
Status = Success
Session ID = 85541
--- END
+++ 0 2021-03-09 16:19:00
O&M #96
%RST BTSNODE: FOCRST=YES;%
RETICODE = 0 Operation succeeded.
--- END
```

Below the output, there are buttons for "Save Result", "Download Report", "Auto Scroll", and "Clear All (F6)".

The "Command History" section shows the command: `RST BTSNODE: FOCRST=YES;`. The "Command (F5)" field contains `RST BTSNODE`, and the "Forced Reset Flag" is set to `YES(YES)`. There are "Assist" and "Exec" buttons next to the command field.

Заливка лицензии

INS LICENSE: DIR="1\", FN="IoTDBS5900LTE_V100R016_20210217VKTH6L.xml", FLG=NO, MODE=IPV4, IP="192.168.0.20", USR="Rus", PREFLG=NO;

Корневой каталог FTP в Directory Name как и при заливке софта не указываем.

Затем активируем INS LICENSE и полное название файла лицензии с расширением.

The screenshot displays the web interface of a BTS5900-GL device. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615282096354`. The page title is "BTS5900-GL". The navigation menu includes "MML", "Alarm/Event", "Batch", "Trace", "Monitor", "Device Maintenance", and "Self Test". The "Device Maintenance" menu is expanded, showing "License Management" with options like "Set Emergency Switch", "List Emergency Switch", "Query ESN", "List License File Information", "Display License Configuration Information", "Clear License", "Install License", "Activate License File", "Revoke License", "Upload License File", "Check Consistency of License File", "Query License Sale Information", "Query Fixed Term License Switch", "Set Fixed Term License Switch", and "Display License Revocation Information". The "Install License" option is selected. The main content area shows the command history and configuration for the "Install License" command. The command is: `INS LICENSE: DIR="1\", FN="IoTDBS5900LTE_V100R016_20210217VKTH6L.xml", FLG=NO, MODE=IPV4, IP="192.168.0.20", USR="Rus", PREFLG=NO;`. The configuration fields are: Directory Name: "1\", File Name: "IoTDBS5900LTE_V100R016", Force Flag: "NO(No)", IP Mode: "IPV4(IPV4)", FTP Server IP: "192.168.0.20", User Name: "Rus", Password: "", Function Type: "AUTO(AUTO)", and Preload Flag: "NO(No)".

Активация emergency (если не выданы лицензии или лицензии не заливаются):

SET LICENSECTRL: FUNCTIONTYPE=GBTS;

SET LICENSECTRL: FUNCTIONTYPE=eNodeB;

The screenshot displays the web interface for the BTS5900-GL system. The browser address bar shows the URL: `https://192.168.0.49/platform/frmwork/view/index.html?2020.07.03.13&time=1615278133002`. The page title is "BTS5900-GL".

The main content area is titled "Common Maintenance (Alt+C)" and "Operation Records (Alt+R)". The "Display OM Channel State" section shows the following parameters:

- Standby Status = Master
- VRF Index = 0
- Bearer Type = IPV4
- Local IP = 11.128.88.6
- Local Mask = 255.255.255.252
- Peer IP = 11.127.3.1
- Peer Mask = 255.255.255.224
- Binding Route = No
- Binding Secondary Route = No
- Check Type = NONE
- OM Channel Status = Abnormal
- Used State = In Use

The "Command History" section shows the following commands:

- DSP OMCH;
- SET LICENSECTRL: FUNCTIONTYPE=eNodeB;
- SET LICENSECTRL: FUNCTIONTYPE=GBTS;** (highlighted)
- DSP VSWR;
- DSP SECTOR;

The interface also includes a navigation tree on the left, a search bar, and various utility buttons like "Save Result", "Download Report", "Auto Scroll", and "Clear All (F6)".

Активация и настройка RET

- Моторы можно настроить только после подачи канала управления, при его отсутствии RRU через 3-5 минут уходят в режим Standby, по команде DSP RETPORT выдает что RRU недоступны.

Проверка портов:

DSP RETPORT;

The screenshot shows the web interface of the BTS5900-GL system. The browser address bar displays the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615383627178`. The page title is "BTS5900-GL". The navigation menu includes "MML", "Alarm/Event", "Batch", "Trace", "Monitor", "Device Maintenance", and "Self Test". The user is logged in as "Local User: admin" with a status of "Connected" and a time of "2021-3-10 16:43:08".

The main content area shows the execution of the "Display RET Port(DSP RETPORT)" command. The output is as follows:

```
+++ BTS_77_21911_DLN 2021-03-10 16:41:13
O&M #190
WWDSP RETPORT:%%
RETCODE = 0 Operation succeeded.

Display RET Port Dynamic Information

Cabinet No. Subrack No. Slot No. Port No. ALD Actual Power Switch ALD Current Value(mA)
0 180 0 RET_PORT ON 36
0 181 0 RET_PORT ON 36
0 182 0 RET_PORT ON 37
(Number of results = 3)

--- END
```

Below the output, there are buttons for "Save Result", "Download Report", "Auto Scroll" (checked), and "Clear All (F6)".

The Command History section shows the command "Display RET(DSP RET)" selected. The Command (F5) field is empty.

The left sidebar contains a "Navigation Tree" with the following structure:

- MML Commands
 - System Management
 - Equipment Management
 - Base Station Maintenance
 - Board Maintenance
 - RRU Maintenance
 - ALD Maintenance
 - Modify Antenna Port(MOD A
 - List Antenna Port(LST ANTEI
 - Display Antenna Port(DSP AN
 - Confirm TMA Connection(CFI
 - Modify RET Port(MOD RETP
 - List RET Port(LST RETPORT
 - Display RET Port(DSP RETP
 - Scan ALD(SCN ALD)
 - Reset ALD(RST ALD)
 - Reset ALD Power Switch(RST
 - Download ALD Software(DLD
 - Stop Scanning ALD(STP ALD:
 - Display ALD Version(DSP ALI
 - Add RET(ADD RET)
 - Remove RET(RMV RET)
 - Modify RET(MOD RET)
 - List RET(LST RET)
 - Display RET(DSP RET)
 - Calibrate RET(CLB RET)
 - Download RET Configuration
 - Modify RET Subunit(MOD RE
 - List RET Subunit(LST RETSU
 - Display RET Subunit(DSP RE
 - Modify RET Tilt(MOD RET TI
 - Modify RET Device Data(MO
 - List RET Device Data(LST RE
 - Display RET Device Data(DSI
 - Modify VRET Configuration(M
 - List VRET Configuration(LST
 - Modify VRET Subunit Configu
 - List VRET Subunit Configurati
 - Display VRET Subunit Dynarr
 - Add TMA(ADD TMA)
 - Remove TMA(RMV TMA)
 - Modify TMA(MOD TMA)

Если ALD Actual Power Switch в значении OFF:

MOD RETPORT: CN=0, SRN=180, SN=0, PWRSWITCH=ON, THRESHOLDTYPE=RET_ONLY_MULTICORE;

Команду вводим для каждого RRU, меняется только значения Subrack No. (180, 181, 182 и т.д в зависимости от количества RRU)

The screenshot displays the web interface for the BTS5900-GL. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615383627178`. The page title is "BTS5900-GL". The user is logged in as "Local User: admin" with a status of "Connected" and a time of "2021-3-10 16:44:30".

The interface includes a navigation tree on the left with categories like "System Management", "Equipment Management", "Base Station Maintenance", "Board Maintenance", "RRU Maintenance", and "ALD Maintenance". The "ALD Maintenance" section is expanded, showing various commands such as "Modify Antenna Port(MOD A)", "List Antenna Port(LST ANTE)", "Display Antenna Port(DSP AN)", "Confirm TMA Connection(CFI)", "Modify RET Port(MOD RETP)", "List RET Port(LST RETPORT)", "Display RET Port(DSP RETPC)", "Scan ALD(SCN ALD)", "Reset ALD(RST ALD)", "Reset ALD Power Switch(RST)", "Download ALD Software(DLD)", "Stop Scanning ALD(STP ALD)", "Display ALD Version(DSP ALD)", "Add RET(ADD RET)", "Remove RET(RMV RET)", "Modify RET(MOD RET)", "List RET(LST RET)", "Display RET(DSP RET)", "Calibrate RET(CLB RET)", "Download RET Configuration", "Modify RET Subunit(MOD RE)", "List RET Subunit(LST RETSU)", "Display RET Subunit(DSP RE)", "Modify RET Tilt(MOD RET TI)", "Modify RET Device Data(MO)", "List RET Device Data(LST RE)", "Display RET Device Data(DSI)", "Modify VRET Configuration(M)", "List VRET Configuration(LST)", "Modify VRET Subunit Configu", "List VRET Subunit Configurati", "Display VRET Subunit Dynam", "Add TMA(ADD TMA)", "Remove TMA(RMV TMA)", and "Modify TMA(MOD TMA)".

The main content area shows the execution of the "MOD RETPORT" command. The output is as follows:

```
Common Maintenance (Alt+C) | Operation Records (Alt+R) | Help (Alt+N)
+++ BTS_77_21911_DLN 2021-03-10 16:41:13
O&M #190
WWDSP RETPORT: %M
RETCODE = 0 Operation succeeded.

Display RET Port Dynamic Information

Cabinet No. Subrack No. Slot No. Port No. ALD Actual Power Switch ALD Current Value(mA)
0 180 0 RET_PORT ON 36
0 181 0 RET_PORT ON 36
0 182 0 RET_PORT ON 37
(Number of results = 3)

--- END
```

Below the output, there are buttons for "Save Result", "Download Report", "Auto Scroll", and "Clear All (F6)".

The command history shows the executed command: "MOD RETPORT". Below this, there is a configuration form with the following fields:

- Command (F5): MOD RETPORT
- Assist: []
- Exec: []
- Use Proxy MML: []
- Cabinet No.: 0
- Subrack No.: 180
- Slot No.: 0
- Port No.: RET_PORT(RET_PORT)
- ALD Power Switch: ON(ON)
- Current Alarm Threshold Type: RET_ONLY_MULTICORE

The bottom status bar shows "ENG 16:44".

Поиск моторов:

Команда SCN ALD::;

The screenshot displays the web interface for the BTS5900-GL system. The browser address bar shows the URL: `https://192.168.0.49/platform/frmwork/view/index.html?2020.07.03.13&time=1615383627178`. The page title is "BTS5900-GL". The user is logged in as "Local User: admin" with a status of "Connected" and a time of "2021-3-10 16:45:15".

The interface features a navigation menu on the left with categories like "MML Commands", "System Management", "Equipment Management", "Base Station Maintenance", "Board Maintenance", "RRU Maintenance", and "ALD Maintenance". The "ALD Maintenance" category is expanded, showing various commands such as "Scan ALD(SCN ALD)".

The main content area shows the execution of the "Scan ALD(SCN ALD)" command. The output is as follows:

```
Common Maintenance (Alt+C) | Operation Records (Alt+R) | Help (Alt+N)
Session ID = 65550
--- END
+++ BTS_77_21911_DLN      2021-03-10 16:45:05
O&M #207
%NSCN ALD:;%
RETCODE = 0 Progress report, Operation succeeded.
Report Type = Scan ALD
Status = Progressing
Progress = 1%
Session ID = 65550
--- END
```

At the bottom of the interface, there is a "Command History" section with a search box and navigation arrows, and a "Command (F5):" input field with "Assist" and "Exec" buttons. A "Use Proxy MML" checkbox is also present.

Common Maintenance (Alt+C)

Operation Records (Alt+R)

Help (Alt+N)

Control Port Subrack No.	Control Port Slot No.	Control Port No.	Result	ALD Device Type	Vendor Code	Serial No.	Protocol Version	Configure Status
180	0	RET	SUCCESS	SINGLE_RET	MT	AU021K160662T--Y2	AISG2.0	UNCONFIGURED
180	0	RET	SUCCESS	SINGLE_RET	MT	AU021K160662T--Y1	AISG2.0	UNCONFIGURED
181	0	RET	SUCCESS	SINGLE_RET	MT	AU021K160544T--Y2	AISG2.0	UNCONFIGURED
181	0	RET	SUCCESS	SINGLE_RET	MT	AU021K160544T--Y1	AISG2.0	UNCONFIGURED
182	0	RET	SUCCESS	SINGLE_RET	MT	AU021K160537T--Y2	AISG2.0	UNCONFIGURED
182	0	RET	SUCCESS	SINGLE_RET	MT	AU021K160537T--Y1	AISG2.0	UNCONFIGURED

 Save Result

Download R

Command History:



Command (F5):

Assist

Exec

 Use Proxy MML

Привязка моторов:

ADD RET: DEVICENO=180, DEVICENAME="CELL_77_21911_1_L18+CELL_77_21911_1_D", CTRLCN=0, CTRLSRN=180, CTRLSN=0, RETTYPE=SINGLE_RET, SCENARIO=DAISY_CHAIN, VENDORCODE="MT", SERIALNO="AU021K160662T-Y1";

Если на антенне 2 встроенных мотора:

сектор1

Мотор №1: Device No – 180, Control Port Subrack No – 180, Device Name CELL_77_21911_1_L18+CELL_77_21911_1_D

Мотор №2: Device No – 380, Control Port Subrack No – 180, Device Name CELL_77_21911_1_L18_2+CELL_77_21911_1_D_2

сектор2

Мотор №1: Device No – 181, Control Port Subrack No – 181, Device Name CELL_77_21911_2_L18+CELL_77_21911_2_D

Мотор №2: Device No – 381, Control Port Subrack No – 181, Device Name CELL_77_21911_2_L18_2+CELL_77_21911_2_D_2

сектор3

Мотор №1: Device No – 182, Control Port Subrack No – 182, Device Name CELL_77_21911_3_L18+CELL_77_21911_3_D

Мотор №2: Device No – 382, Control Port Subrack No – 182, Device Name CELL_77_21911_3_L18_2+CELL_77_21911_3_D_2

Vendor code – из инфы по SCN ALD

Serial No. - из инфы по SCN ALD, ВВОДИМ ПОЛНОСТЬЮ, со всеми знаками

Остальное как на картинке ниже.

The screenshot shows the BTS5900-GL web interface. The top navigation bar includes 'Configure Emergency OM Channel', 'Obtain Documentation List', 'FTP Tool', 'Command Group Settings', 'Password', 'About', 'System Settings', and 'Logout'. The main workspace is titled 'BTS5900-GL' and shows a 'Workspace' tab with 'Alarm/Event' selected. The left sidebar contains a 'Navigation Tree' with categories like 'System Management', 'Equipment Management', 'Base Station Maintenance', 'Board Maintenance', 'RRU Maintenance', and 'ALD Maintenance'. The main content area displays a table of 'Operation Records (Alt+R)' with columns for Device No, Device Name, Control Port Subrack No, RET Type, Scenario, Vendor Code, and Serial No. Below the table, there is a 'Command History' section and a form for 'ADD RET' with fields for Device No, Device Name, Control Port Cabinet No, Control Port Subrack No, Control Port Slot No, RET Type, Polar Type, Antenna Scenario, Vendor Code, Serial No, and Antenna Form. The form is populated with values: Device No: 380, Device Name: 8_2+CELL_77_21911_1_D_2, Control Port Cabinet No: 0, Control Port Subrack No: 180, Control Port Slot No: 0, RET Type: SINGLE_RET(SINGLE_RE), Polar Type: DUAL(DUAL), Antenna Scenario: DAISY_CHAIN(DAISY_C), Vendor Code: MT, Serial No: AU021K160662T-Y2, and Antenna Form: NORMAL_ANTENNA(Norr).

Device No	Device Name	Control Port Subrack No	RET	Operation	RET Type	Scenario	Vendor Code	Serial No	Status
181			RET	SUCCESS	SINGLE_RET	MT	AU021K160662T-Y1	AIS02.0	UNCONFIGURED
182			RET	SUCCESS	SINGLE_RET	MT	AU021K160662T-Y2	AIS02.0	UNCONFIGURED
182			RET	SUCCESS	SINGLE_RET	MT	AU021K160662T-Y1	AIS02.0	UNCONFIGURED

Command History: [Dropdown] [Previous] [Next]

Command (F5): ADD RET [Assist] [Exec] [Use Proxy MML]

Device No: 380 Device Name: 8_2+CELL_77_21911_1_D_2

Control Port Cabinet No: 0 Control Port Subrack No: 180

Control Port Slot No: 0 RET Type: SINGLE_RET(SINGLE_RE)

Polar Type: DUAL(DUAL) Antenna Scenario: DAISY_CHAIN(DAISY_C)

Vendor Code: MT Serial No: AU021K160662T-Y2

Antenna Form: NORMAL_ANTENNA(Norr)

Калибровка моторов:

CLB RET: OPMODE=SITE;

На МОВІ может выдать ошибку, ждем минут 5-10 и запускаем заново.

The screenshot displays the web interface for the BTS5900-GL system. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615383627178`. The page title is "BTS5900-GL". The navigation menu includes "MML", "Alarm/Event", "Batch", "Trace", "Monitor", "Device Maintenance", and "Self Test". The user is logged in as "admin" with a status of "Connected" and a time of "2021-3-10 17:05:00".

The main content area shows the "Common Maintenance (Alt+C)" tab. The "Navigation Tree" on the left lists various MML commands, with "Calibrate RET (CLB RET)" selected. The main display area shows the following text:

```
+++ BTS_77_21911_DLN 2021-03-10 17:02:21
O&M #294
%%CLB RET: OPMODE=SITE,%%
RETCODE = 0 Progress report, Operation succeeded.

Report Type = Calibrate RET
Status = Success
Session ID = 65565

Result
-----
Device No. Subunit No. Result
180 1 SUCCESS
181 1 SUCCESS
182 1 SUCCESS
```

Below the result, the command "CLB RET: OPMODE=SITE;" is entered. The "Command History" section shows the command "CLB RET" and the "Operate Mode" is set to "SITE(Operating by Site)".

Установка углов:

MOD RETTILT: RETCLASS=RET, OPMODE=DEVICENO, DEVICENO=380, TILT=40;

команду вводим для каждого мотора, меняется Device No. (180, 181, 182, 380, 381, 382), Tilt=эл.угол*10 (если в задании угол=4 то вводим значения=40)

The screenshot displays the web interface for the BTS5900-GL system. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615383627178`. The interface includes a navigation menu on the left with categories like MML Commands, System Management, and Equipment Management. The main area shows the execution results of the MML command `MOD RETTILT: RETCLASS=RET, OPMODE=DEVICENO, DEVICENO=180, TILT=40, NW`, which was successful. Below this, the configuration for the command is shown: RET Class: RET (Remote Electrical Tilt), Operate Mode: DEVICENO (Operating by Device), Device No.: 380, and Tilt (0.1degree): 40.

Navigation Tree:

- MML Commands
 - System Management
 - Equipment Management
 - Base Station Maintenance
 - Board Maintenance
 - RRU Maintenance
 - ALD Maintenance
 - Modify Antenna Port (MOD A)
 - List Antenna Port (LST ANTE)
 - Display Antenna Port (DSP AN)
 - Confirm TMA Connection (CFI)
 - Modify RET Port (MOD RETP)
 - List RET Port (LST RETPORT)
 - Display RET Port (DSP RETPC)
 - Scan ALD (SCN ALD)
 - Reset ALD (RST ALD)
 - Reset ALD Power Switch (RST)
 - Download ALD Software (DLD)
 - Stop Scanning ALD (STP ALD)
 - Display ALD Version (DSP ALD)
 - Add RET (ADD RET)
 - Remove RET (RMV RET)
 - Modify RET (MOD RET)
 - List RET (LST RET)
 - Display RET (DSP RET)
 - Calibrate RET (CLB RET)
 - Download RET Configuration
 - Modify RET Subunit (MOD RE)
 - List RET Subunit (LST RETSU)
 - Display RET Subunit (DSP RE)
 - Modify RET Tilt (MOD RET TI)
 - Modify RET Device Data (MO)
 - List RET Device Data (LST RE)
 - Display RET Device Data (DSI)
 - Modify VRET Configuration (M)
 - List VRET Configuration (LST)
 - Modify VRET Subunit Configu
 - List VRET Subunit Configurati
 - Display VRET Subunit Dynam
 - Add TMA (ADD TMA)
 - Remove TMA (RMV TMA)
 - Modify TMA (MOD TMA)

Проверка моторов:

DSP RETSUBUNIT;

Navigation Tree

- MML Commands
 - System Management
 - Equipment Management
 - Base Station Maintenance
 - Board Maintenance
 - RRU Maintenance
 - ALD Maintenance
 - Modify Antenna Port(MOD A)
 - List Antenna Port(LST ANTE)
 - Display Antenna Port(DSP AN)
 - Confirm TMA Connection(CFI)
 - Modify RET Port(MOD RETP)
 - List RET Port(LST RETPORT)
 - Display RET Port(DSP RETPC)
 - Scan ALD(SCN ALD)
 - Reset ALD(RST ALD)
 - Reset ALD Power Switch(RST)
 - Download ALD Software(DLD)
 - Stop Scanning ALD(STP ALD)
 - Display ALD Version(DSP ALV)
 - Add RET(ADD RET)
 - Remove RET(RMV RET)
 - Modify RET(MOD RET)
 - List RET(LST RET)
 - Display RET(DSP RET)
 - Calibrate RET(CLB RET)
 - Download RET Configuration
 - Modify RET Subunit(MOD RE)
 - List RET Subunit(LST RETSU)
 - Display RET Subunit(DSP RE)
 - Modify RET Tilt(MOD RETTI)
 - Modify RET Device Data(MO)
 - List RET Device Data(LST RE)
 - Display RET Device Data(DSI)
 - Modify VRET Configuration(M)
 - List VRET Configuration(LST)
 - Modify VRET Subunit Configu
 - List VRET Subunit Configurati
 - Display VRET Subunit Dynam
 - Add TMA(ADD TMA)
 - Remove TMA(RMV TMA)
 - Modify TMA(MOD TMA)

Вывод БС в эфир:

- 2G активируется с контроллера, обычно сразу выходит в эфир, но лучше проверить.

Проверка KCB

STR VSWRTEST;

The screenshot displays the web interface for the BTS5900-GL system. The browser address bar shows the URL: `https://192.168.0.49/platform/frmwork/view/index.html?2020.07.03.13&time=1615386300772`. The page title is "BTS5900-GL".

Navigation tabs include: MML, Alarm/Event, Batch, Trace, Monitor, Device Maintenance, Self Test.

Local User: admin Status: Connected NE Time: 2021-3-10 17:29:47

Workspace: Alarm/Event MML

Navigation Tree (left sidebar):

- Remove RRU/RFU(RMV RRU)
- Modify RRU/RFU Configuration
- List RRU/RFU(LST RRU)
- Display RRU/RFU(DSP RRU)
- Start RRU/RFU Health Check
- Set RRU/RFU Enhanced Mod
- Display RRU/RFU Enhanced I
- RRU Loop Test(TST LOPRR)
- Set RRU Clock Source(SET R)
- Display RRU Clock Source(DS
- Start Interference Detection
- Display Interference Detectio
- Stop Interference Detection
- Add AARU(ADD AARU)
- Remove AARU(RMV AARU)
- Modify AARU Configuration
- List AARU Configuration(LST
- Display AARU Dynamic Inform
- Start Antenna Quality Test(S
- Add Authorized Downlink Freq
- Remove Authorized Downlink
- Modify Authorized Downlink F
- List Authorized Downlink Freq
- Add AAS(ADD AAS)
- Remove AAS(RMV AAS)
- Modify AAS Configuration(MC
- List AAS Configuration(LST A
- Display AAS Dynamic Inform
- Display RHUB Remote Power
- Add RHUB(ADD RHUB)
- Remove RHUB(RMV RHUB)
- Modify RHUB(MOD RHUB)
- List RHUB(LST RHUB)
- Display RHUB Status(DSP R
- Start Cross Feeder Test(STF
- Lock Maxmum RRU/RFU Ch
- Modify TX Channel(MOD TX
- List TX Channel(LST TXBRAI
- Display TX Channel(DSP TXE
- Tune RRU/RFU TX Power(VF
- Display VSWR Test Result(D
- Start VSWR Test(STR VSWR

Common Maintenance (Alt+C) | Operation Records (Alt+R) | Help (Alt+N)

Status = Success
Session ID = 65540

VSWR Query Result

BS Name	Sector No.	Cabinet No.	Subrack No.	Slot No.	TX Channel No.	VSWR(0.01)	Test Result
BTS_77_21911_DLN	180	0	180	0	0	110	Successful
BTS_77_21911_DLN	180	0	180	0	1	114	Successful
BTS_77_21911_DLN	181	0	181	0	0	102	Successful
BTS_77_21911_DLN	181	0	181	0	1	109	Successful
BTS_77_21911_DLN	182	0	182	0	0	105	Successful
BTS_77_21911_DLN	182	0	182	0	1	106	Successful

(Number of results = 6)

--- END

STR VSWRTEST;

Command History: STR VSWRTEST;

Command (F5): STR VSWRTEST Assist Exec Use Proxy MML

Cabinet No. [Dropdown] Test Mode [Dropdown]

Txbranch Power [Dropdown]
Relative Value(0.1dB) [Dropdown]

Save Result Download Report Auto Scroll Clear All (F6)

Windows Taskbar: ENG 17:29

Проверка секторов:

LST CELL;

The screenshot displays the web interface for the BTS5900-GL system. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615386300772`. The page title is "BTS5900-GL".

The main content area shows the execution of the "LST CELL;" command. The output includes a success message: "RETCODE = 0 - Operation succeeded." and a table of static parameters for cells.

Local Cell ID	Cell Name	Csg indicator	Uplink cyclic prefix length	Downlink cyclic prefix length	NE-IoT Cell Flag	Coverage Level Type	Freq
11	CELL_77_21911_1_L18	False	Normal	Normal	FALSE	NULL	3
12	CELL_77_21911_2_L18	False	Normal	Normal	FALSE	NULL	3
13	CELL_77_21911_3_L18	False	Normal	Normal	FALSE	NULL	3
211	CELL_77_21911_1_N118	False	Normal	Normal	TRUE	COVERAGE_LEVEL_0:0n&COVERAGE_LEVEL_1:0n&COVERAGE_LEVEL_2:0n	NULL
212	CELL_77_21911_2_N118	False	Normal	Normal	TRUE	COVERAGE_LEVEL_0:0n&COVERAGE_LEVEL_1:0n&COVERAGE_LEVEL_2:0n	NULL
213	CELL_77_21911_3_N118	False	Normal	Normal	TRUE	COVERAGE_LEVEL_0:0n&COVERAGE_LEVEL_1:0n&COVERAGE_LEVEL_2:0n	NULL

Below the table, the command history shows the executed command: "LST CELL;". The interface also includes a "Local Cell ID" dropdown menu and buttons for "Assist" and "Exec".

Запуск секторов:

ACT CELL: LocalCellId=11;

Команда вводится для каждого сектора, LocalCellId узнаем по команде LST CELL (выше)

The screenshot displays the web interface for the BTS5900-GL system. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615386300772`. The page title is "BTS5900-GL". The user is logged in as "admin" and the system time is "2021-3-10 17:32:34".

The main content area shows the "Common Maintenance (At+C)" tab. A table lists maintenance records for three cells:

Cell ID	Cell Name	Status	Priority	Time	Result	Details
211	CELL_77_21911_1_NI18	False	Normal		TRUE	COVERAGE_LEVEL_0:On&COVERAGE_LEVEL_1:On&COVERAGE_LEVEL_2:On
212	CELL_77_21911_2_NI18	False	Normal		TRUE	COVERAGE_LEVEL_0:On&COVERAGE_LEVEL_1:On&COVERAGE_LEVEL_2:On
213	CELL_77_21911_3_NI18	False	Normal		TRUE	COVERAGE_LEVEL_0:On&COVERAGE_LEVEL_1:On&COVERAGE_LEVEL_2:On

Below the table, the command history shows the execution of the command: `ACT CELL: LocalCellId=11;`. The command history entry is: `ACT CELL: LocalCellId=11;`. The command (F5) is `ACT CELL`. The Local Cell ID is set to `11`.

The command history shows the following output:

```
+++ BTS_77_21911_DLW 2021-03-10 17:32:24
00M #808452097
%%ACT CELL: LocalCellId=11,%%
RETCODE = 0 Operation succeeded.
```

Серийные номера оборудования.

Серийные номера RRU:

команда DSP RRUCHAINPHYTOPO;;

The screenshot shows the web interface for the BTS5900-GL. The browser address bar shows the URL: `https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615287616574`. The page title is "BTS5900-GL". The user is logged in as "admin".

The main content area displays the command execution results for the command `DSP RRUCHAINPHYTOPO;;`. The command history shows the command was entered and executed. The command input field contains `DSP RRUCHAINPHYTOPO` and the "Assist" button is active. The "Subrack No." field is set to "OFF(OFF)".

The "Extended Information Output Switch" is set to "OFF(OFF)". A tooltip for "Subrack No." is visible, showing the parameter name "SRN(Subrack No.)" and the parameter type "Range" with a range of "0-1, (60-254)".

The interface also shows a table of "Common Maintenance (Alt+C)" and "Operation Records (Alt+R)" data. The "Common Maintenance" table has 11 columns: CHAIN, 0, 0, 4, 0, 0, NULL, NULL, NULL, NULL, NULL. The "Operation Records" table has 11 columns: CHAIN, 0, 0, 4, 1, 0, NULL, NULL, NULL, NULL, NULL. The "Display Device Dynamic Information" table has 11 columns: Cabinet No., Subrack No., Slot No., Port No., Sub Port No., Topo Position, Trunk Level, Standard Capability, Physical device serial No., Uplink Port No., Uplink Support No. The table shows two rows of data for the physical device serial numbers 2102311FRDDULB001683 and 2102311FFF10L9000419.

Серийный номер BBU:

команда LST ESN;

The screenshot shows the BTS5900-GL web interface. The browser address bar displays the URL: <https://192.168.0.49/platform/framework/view/index.html?2020.07.03.13&time=1615386300772>. The page title is "BTS5900-GL". The user is logged in as "Local User: admin" with a status of "Connected" and a time of "2021-3-10 17:43:25".

The interface features a navigation tree on the left with the following structure:

- Query ESN(LST ESN) (Selected)
- List License File Information(I)
- Display License Configuration
- Clear License(CLR LICENSE)
- Install License(INS LICENSE)
- Activate License File(ACT LIC)
- Revoke License(RVK LICENSE)
- Upload License File(ULD LICE)
- Check Consistency of License
- Query License Sale Informat
- Query Fixed Term License S
- Set Fixed Term License Swit
- Display License Revocation I
- Application Management
- File Management
- CB Management
- Configuration Rights Management
- Batch Command Processing
- Log Management
- Security Management
- Security Query
- Routine Test
- Equipment Management
 - Base Station Maintenance
 - Board Maintenance
 - RRU Maintenance
 - Add RRU Chain/Ring(ADD RR)
 - Remove RRU Chain/Ring(RM)
 - Modify RRU Chain/Ring(MOD)
 - List RRU Chain/Ring(LST RRL)
 - Display RRU Chain/Ring(DSP)
 - Combine RRU Chain/Ring(CM)
 - Display RRU Chain/Ring Phys
 - Set CPRI Threshold(SET CPF)
 - Display CPRI Threshold(DSP)
 - Set Frequency Bandwidth(SE)
 - List Frequency Bandwidth(LS)
 - Add RF Connect Group(ADD)
 - Remove RF Connect Group(I)
 - List RF Connect Group(LST F
 - Add RRU/RFU(ADD RRU)
 - Remove RRU/RFU(RMV RRU)

The main content area displays the output of the "LST ESN" command:

```
--- END  
+++ BTS_77_21911_DLN      2021-03-10 17:43:21  
O&M #189  
%%LST ESN:%%  
RETCODE = 0  Operation succeeded.  
  
Query ESN  
-----  
ESN = 2102312JXC10LA000363  
(Number of results = 1)  
  
--- END
```

At the bottom of the interface, there is a "Command History" section with a search box and navigation arrows. Below it is a "Command (F5):" input field with "Assist" and "Exec" buttons, and a checkbox for "Use Proxy MML".