

# RADIO SITE DESIGN DOCUMENTATION

Region : North SH4056

| ERICSSON 🔰  |      |                        |   |
|---|------|------------------------|---|
| CAPTION LIST  Document No.  001 53-IPA 166 0343 Uen   |      | Document List          | 1 |
|   |      |                        |   |
|   |      |                        |   |
| Date<br>2019-07-17  | Rev. |                        |   |
| SITE  |      | Site Documents         | 2 |
| INSTALLATION<br>DOCUMENT  |      | Plant Specification    | : |
| telenor   |      | Cabling Diagram        | • |
| Telenor Myanmar<br>SH4056<br>Shan   |      | External Alarm         |   |
| G900+U2100+L2100  ATTENTION This documentation must be updated on site. All the documents must be |      | Check Lists            |   |
|   |      | Test Documents         | 7 |
| corrected, where changes have occurred, and signed by the Installation Supervisor.                |      | Acceptance Certificate | 8 |



# **DOCUMENT LIST**

|      |  |         | DOCUMENT EN             | <b>J</b> 1 |                  |
|------|--|---------|-------------------------|------------|------------------|
| .28  | Prepared (also subject responsible if other) |         | Document No.            |            |                  |
| 4-07 | EMZ Zaw Myo Aung                             |         | 001 51-IPA 166 0343 Uen |            |                  |
|      | Doc respons/Approved                         | Checked | Date                    | Rev.       | File             |
| ⊳A3  | EMZ Manoi Kumar A                            |         | 2019-07-17              | Α          | SDD SH4056 Rev.A |

Project: Telenor Myanmar Site: SH4056

|                                      | Document name  | Document number   | Rev.             |
|--------------------------------------|--|---|------------------|
|                                      | SITE INSTALLATION DOCUMENT   | 001 53-IPA 166 0343 Uen   | Α                |
| 1                                    | DOCUMENT LIST Document List  | 001 51-IPA 166 0343 Uen   | Α                |
| 2<br>2.1<br>2.2<br>2.3<br>2.4<br>2.5 | SITE DOCUMENTS Configuration Data RBS Situating Plan Antenna Placement Information Grounding Information Cable way Drawing | 1/127 04-IPA 166 0343 Uen<br>153 38-IPA 166 0343 Uen<br>153 12-IPA 166 0343 Uen<br>193 34-IPA 166 0343 Uen<br>193 24-IPA 166 0343 Uen | A<br>A<br>A<br>A |
| 3<br>3.1                             | PLANT SPECIFICATION Plant Specification (RBS)  | 1/127 11-IPA 166 0343 Uen   | Α                |
| 4<br>4.1<br>4.2<br>4.3               | CABLING DIAGRAM Cabling Diagram (power and earth) Cabling Diagram (signal and antenna) Allocation Drawing (Cabinet)        | 1/193 18-IPA 1/356 07 Uen<br>2/193 18-IPA 1/356 08 Uen<br>193 26-IPA 1/356 09 Uen   | A<br>A<br>A      |
| 5                                    | EXTERNAL ALARM Allocation Table  | 193 19-IPA 166 0343 Uen   | Α                |
| 6<br>6.1<br>6.2                      | CHECK LISTS Installation Check List OHS Check List   | 153 11-IPA 166 0343 Uen<br>176 27-IPA 166 0343 Uen  | A<br>A           |
| 7<br>7.1<br>7.2                      | TEST DOCUMENTS RBS Test Report - G900 RBS Test Report - W2100  | 1/153 83-IPA 166 0343 Uen<br>2/153 83-IPA 166 0343 Uen  | A<br>A           |
| 8                                    | ACCEPTANCE CERTIFICATE Product List Site Photos Acceptance Certificate   | 1/193 32-IPA 166 0343 Uen<br>PHT-09:0001-IPA 166 0343 Uen<br>179 61-IPA 166 0343 Uen  | A<br>A<br>A      |





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| ິຊິ EMZ Manoj Kumar A                        |              | 2019-07-17                | Α    | SDD_SH4056_Rev.A |

**Project: Telenor Myanmar** 

Site: SH4056

### 1 GENERAL SITE DATA

1.1 Geographical coordinates N 20° 2' 24.72" - E 97° 14' 19.32"

1.2 Region North

1.3 Address NaungKhaLauk Village,NaungKyaw Village Group

HsiHseng Township, (South) Shan State

1.4 Type of Site Green Field1.5 Equipment location Outdoor cabinet

1.6 Floor material Concrete

### 2 TECHNICAL DATA RBS GSM SYSTEM

 2.1
 System
 GSM

 2.2
 RBS type
 RBS 6601

 2.3
 No. of sector
 3

2.4 No. of carrier2.5 No. of Remote Radio Unit (RRU)3

2.6 RRU type RRUS 01 B82.7 Mechanical Dimensions RRUS (mm) WxDxH 470x190x518

2.8 Weight for one RRU (kg) 22.4

2.9 Mechanical Dimensions MU(mm) WxDxH 483x355x66
2.10 Weight for one Main Unit (fully equiped) 10 kg
2.11 Power supply -48V DC

2.12 Power consumption (maximum) 437 W (MU) 300 W (RRUs)

2.13 Mains circuit breaker 15A + 3x 25A

2.14 Heat dissipation (maximum) 340 W (MU) 300 W (RRUs)

### 3 TECHNICAL DATA RBS WCDMA SYSTEM

3.1 System WCDMA

3.2 RBS type RBS 6601
3.3 No. of sector 3

3.4 No. of carrier 2/2/23.5 No. of Remote Radio Unit (RRU) 3

3.6 RRU type RRUS 12 B1

3.6 RRU type RRUS 12 B1
3.7 Mechanical Dimensions RRUS (mm) WxDxH 470x190x518

3.8 Weight for one RRU (kg) 22.4

3.9 Mechanical Dimensions MU(mm) WxDxH 483x355x66
3.10 Weight for one Main Unit (fully equiped) 10 kg
3.11 Power supply -48V DC

3.12 Power consumption (maximum) 437 W (MU) 300 W (RRUs)

3.13 Mains circuit breaker 15A + 3x 25A

3.14 Heat dissipation (maximum) 340 W (MU) 300 W (RRUs)

### 5 TECHNICAL DATA CABINET

5.1 Mechanical Dimensions (mm) WxDxH

0 9

5.2 Free space for equipment





|  |              |                           | _    |                  |
|--|--------------|---------------------------|------|------------------|
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Site: SH4056

# 6 TECHNICAL DATA RBS ANTENNA SYSTEM

| 6.1 | Antenna height (m.a.g.l.) | A= 54         | B= 54           | C= 54             |
|-----|---------------------------|---------------|-----------------|-------------------|
| 6.2 | Antenna directions        | A= 10°        | B= 180°         | C= 270°           |
| 6.3 | Mech/Elec Downtilt, deg   | $A = 2^0/0^0$ | $B=2^{0}/0^{0}$ | $C = 2^{0}/0^{0}$ |
| 6.4 | Quantity of RRU           | 6 pcs         |                 |                   |

6.5 Antenna type ADU451807v01

6.6 Antenna model DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M

6.7 Antenna dimensions (mm) 2535 x 259 x 135

6.8 Weight of one antenna (kg) 21

6.9 Wind load (N) Frontal: 910 (at 150 km/h)

Lateral: 470 (at 150 km/h) Rear: 1200 (at 150 km/h)

6.10 No. of Fiber Optic 6

# 7 TECHNICAL DATA RBS ANTENNA SUPPORT STRUCTURE

7.1 Tower/mast/pole type Green Field 55m



### SITUATING PLAN

| telenor |
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|------|--|--------------|-------------------------|------|------------------|
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| 4-07 | EMZ Zaw Myo Aung                             |              | 153 38-IPA 166 0343 Uen |      |                  |
| 201  | Doc respons/Approved                         | Checked      | Date                    | Rev. | File             |
| PA3  | EMZ Manoj Kumar A                            |              | 2019-07-17              | Α    | SDD_SH4056_Rev.A |

Project: Site: Telenor Myanmar SH4056

Geographical coordinates

Address

N 20° 2' 24.72" - E 97° 14' 19.32"

NaungKhaLauk Village,NaungKyaw Village Group, HsiHseng Township, (South) Shan State





# **ANTENNA PLACEMENT INFORMATION**



| 28     | Prepared (also subject responsible if other) | Document No.            |            |      |                  |
|--------|--|-------------------------|------------|------|------------------|
| 4-07-; | EMZ Zaw Myo Aung                             | 153 12-IPA 166 0343 Uen |            |      |                  |
|        |  | Checked                 | Date       | Rev. | File             |
| PA3    | EMZ Manoj Kumar A                            |                         | 2019-07-17 | Α    | SDD_SH4056_Rev.A |

**Project:** Telenor Myanmar

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Address NaungKhaLauk Village,NaungKyaw Village Group,

HsiHseng Township, (South) Shan State

| TSSR RND Info | Bearing | Antenna Mid Ht | Tower/Pole<br>Hight (m) | Tower Type | Building High | M Tilt | E Tilt |
|---------------|---------|----------------|-------------------------|------------|---------------|--------|--------|
| SH4056_C01_1  | 10      | 54             | 55                      | GBT ~      |               | 2      | 0      |
| SH4056_C01_2  | 180     | 54             | 55                      | GBT ~      |               | 2      | 0      |
| SH4056_C01_3  | 270     | 54             | 55                      | GBT V      |               | 2      | 0      |



### **GROUNDING INFORMATION**

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|       |                      |         | OKOOKDINO III           | OTTIMIZETOR |                  |
|-------|----------------------|---------|-------------------------|-------------|------------------|
| 88    |                      |         | Document No.            |             |                  |
| 4-07- |                      |         | 193 34-IPA 166 0343 Uen |             |                  |
| 201   | Doc respons/Approved | Checked | Date                    | Rev.        | File             |
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Project: **Telenor Myanmar** 

Site: SH4056

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NaungKhaLauk Village,NaungKyaw Village Group, HsiHseng Township, (South) Shan State Address

No Grounding info is available.



# **CABLE WAY DRAWING**

| 1 | telenor |
|---|---------|
|   |         |

| 88    | Prepared (also subject responsible if other) | Document No. |                         |      |                  |
|-------|--|--------------|-------------------------|------|------------------|
| 4-07- | EMZ Zaw Myo Aung                             |              | 193 24-IPA 166 0343 Uen |      |                  |
|       |  | Checked      | Date                    | Rev. | File             |
| PA3   | EMZ Manoj Kumar A                            |              | 2019-07-17              | Α    | SDD_SH4056_Rev.A |

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Site: SH4056

Geographical coordinates N 20° 2' 24.72" - E 97° 14' 19.32"

Address NaungKhaLauk Village,NaungKyaw Village Group,

HsiHseng Township, (South) Shan State

Not Available.



PLANT SPECIFICATION (RBS)



| Prepared (also subject responsible if other) | Document No.     |            |                           |                  |  |
|--|------------------|------------|---------------------------|------------------|--|
| EMZ Zaw Myo Aung                             | EMZ Zaw Myo Aung |            | 1/127 11-IPA 166 0343 Uen |                  |  |
| Doc respons/Approved                         | Checked          | Date       | Rev.                      | File             |  |
| ₹ EMZ Manoj Kumar A                          |                  | 2019-07-17 | Α                         | SDD_SH4056_Rev.A |  |

Telenor Myanmar SH4056 Project: Site:

|                                      | Product number   | Description  | Quantity                   |
|--------------------------------------|--|--|----------------------------|
| 1<br>1.1<br>1.2<br>1.3<br>1.4<br>1.5 | RBS 6601 for 2G<br>1/BFL901009/4<br>KDU137569/1<br>KDU137739/1<br>KRC11871/2<br>SXK1250245/1<br>EMZ-RRU-PC | EQUIPPED MAGAZINE/SUP 6601; EQUIPPED MAG<br>PROCESSOR UNIT/DUG 20 01;DIGITAL UNIT<br>PROCESSOR UNIT/TCU 02 01;TRANSPORT CONNE<br>TRANSCEIVER/RRUS 01 B8;RADIO UNIT<br>POLE MOUNTING FIXTURE CEU<br>Power Connector for RRU | 1<br>1<br>1<br>3<br>3<br>3 |
| 1<br>2.1<br>2.2<br>2.3<br>2.4<br>2.6 | RBS 6601 for 3G (W21.1)<br>1/BFL901009/4<br>KDU127174/3<br>KRC161297/2<br>SXK1250245/1<br>EMZ-RRU-PC       | EQUIPPED MAGAZINE/SUP 6601; EQUIPPED MAG<br>PROCESSOR UNIT/DUW 31 01;DIGITAL UNIT<br>TRANSCEIVER/RRUS 12 B1;Radio Unit<br>POLE MOUNTING FIXTURE CEU<br>Power Connector for RRU   | 1<br>1<br>3<br>3<br>3      |
| 3<br>3.1<br>3.1                      | ANTENNA SYSTEM<br>27010881-001<br>27150243<br>RET MATERIAL   | Directional Antenna, DXX-790-960/1710-2180-65/65-<br>Downtilt Kit-B Type   | 3<br>3                     |
| 4.1<br>4.2<br>4.3                    | 4050228<br>04045920<br>27150136  | AISG Cable For Outdoor Use,5m,AISG VF 8PIN,AISG<br>Single cable,AISG cable,0.5m,RC8SM(S)-<br>Antenna Feeder Accessories,RCU136,Agisson   | 3<br>3<br>6                |



PLANT SPECIFICATION (RBS)



| Prepared (also subject responsible if other) | Prepared (also subject responsible if other) |         |                           | Document No. |                  |  |
|--|--|---------|---------------------------|--------------|------------------|--|
| EMZ Zaw Myo Aung                             | EMZ Zaw Myo Aung                             |         | 1/127 11-IPA 166 0343 Uen |              |                  |  |
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| ଞ୍ଚି EMZ Manoj Kumar A                       |  |         | 2019-07-17                | Α            | SDD SH4056 Rev.A |  |

Project: Telenor Myanmar

Site: SH4056

| <b>5</b><br>5.6 | CABINET<br>EAB-ESOF009EAE01 | 1.2M ALUMINUM FAN COOLED CAB 16U SPACE   | 1   |
|-----------------|-----------------------------|--|-----|
| 6               | INSTALLATION MATERIAL       | <del></del>                              |     |
| 6.1             | TFL492324/500M              | POWER CABLE/2X6 MM2;UL;LSOH;ALU+CU-SCREE | 5 M |
| 6.3             | TSR95170/3                  | JUMPER CABLE/COMMSCOPE 1/2" JUMPER CABLE | 12  |
| 6.4             | NTM2013727/1                | SET OF MATERIALS/TUBE KIT 8,5M           | 2   |
| 6.5             | LTRFSEAL300                 | Silicon box                              | 1   |
| 6.6             | EAB-LTACCTIECV4830          | Plastic tie Strap, 100 pcs/package,      | 2   |
| 6.7             | EAB-LTPWACCLUGM825          | ACC -25MM2 GROUNDING CABLE 16X CABL      | 4   |
| 6.8             | EAB-LTACBOLTM6ZERC          | 10X NUTS,SCREWS, WASHERS- MOUNTING       | 2   |
| 6.9             | TFL492324/500M              | POWER CABLE/2X6 MM2;UL;LSOH;ALU+CU-SCREE | 420 |
|                 |                             |  |     |
| 7               | OTICAL CABLE                |  |     |
| 7.1             | RPM2531610/70M              | CABLE WITH CONNECTOR/2F LC(FullAXS)-LC S | 6   |



# **CABLING DIAG. (POWER AND EARTH)**



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Document No.

1/193 18-IPA 166 0343 Uen

Doc respons/Approved

EMZ Manoj Kumar A

Checked

Date

Rev. File

2019-07-17

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**Project: Telenor Myanmar** 

Site: SH4056

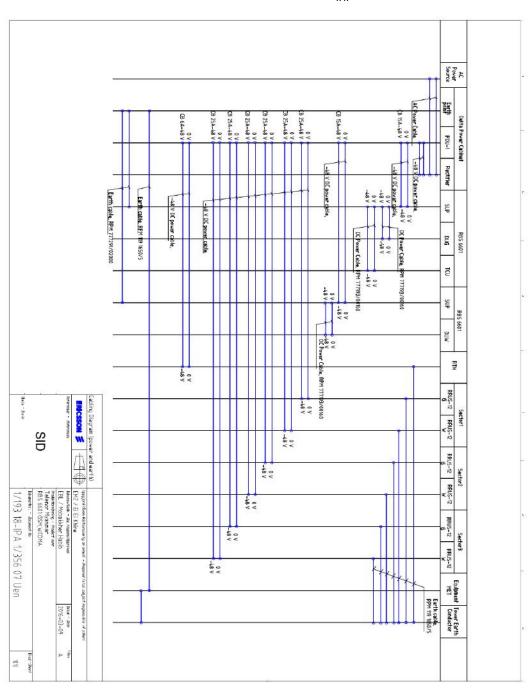
Geographical coordinates

Address

N 20° 2' 24.72" - E 97° 14' 19.32"

NaungKhaLauk Village, NaungKyaw Village Group,

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# **CABLING DIAG. (SIGNAL AND ANTENNA)**



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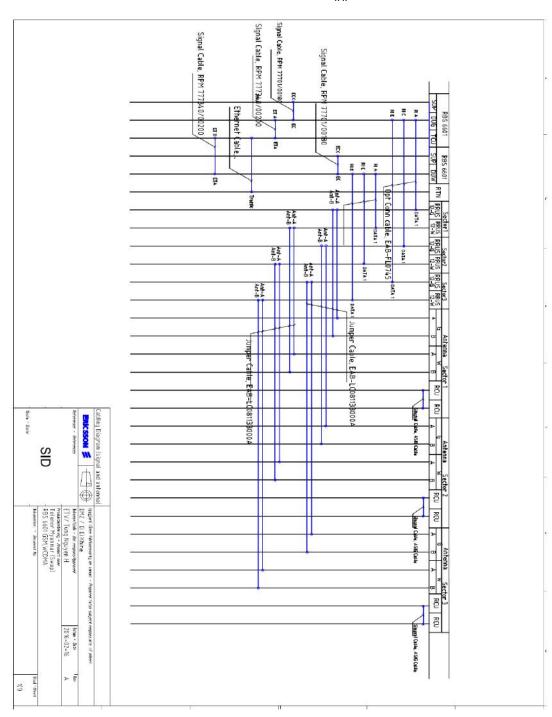
Geographical coordinates

Address

N 20° 2' 24.72" - E 97° 14' 19.32"

NaungKhaLauk Village, NaungKyaw Village Group,

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PA3 2014-07-28

# **ALLOCATION DRAWING (CABINET)**



|  | ALLOUA  | ) DIMANIA PIOL | OADINE!    |                  |
|--|---------|----------------|------------|------------------|
| Prepared (also subject responsible if other) |         | Document No.   |            |                  |
| EMZ Zaw Myo Aung                             |         | 193 26-IPA 166 | 6 0343 Uen |                  |
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| EMZ Manoi Kumar A                            |         | 2019-07-17     | Α          | SDD SH4056 Rev.A |

**Project:** Telenor Myanmar

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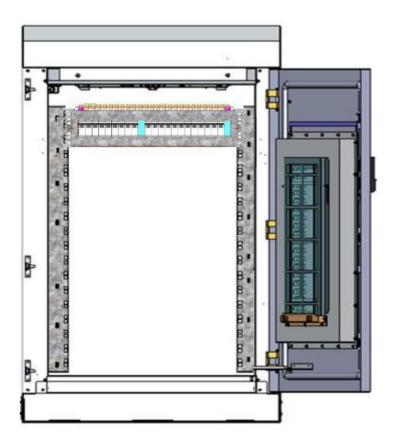
Geographical coordinates

Address

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NaungKhaLauk Village,NaungKyaw Village Group,

HsiHseng Township, (South) Shan State





### **ALLOCATION DRAWING**

| - | telenor |
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|       |  |              | ALLOGATION              | ITATINO |                  |
|-------|--|--------------|-------------------------|---------|------------------|
| 78    | Prepared (also subject responsible if other) | Document No. |                         |         |                  |
| 4-07- | EMZ Zaw Myo Aung                             |              | 193 19-IPA 166 0343 Uen |         |                  |
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Site: SH4056

# **ALLOCATION TABLE: ALARMS**

# 1 RBS 6601 for 2G (G900)

| SI. | Alarm                    | Туре     | Physical port |
|-----|--------------------------|----------|---------------|
| 1   | AC MAIN POWER FAILURE    | Breaking |               |
| 2   | Rectifier Module Failure | Breaking |               |
| 3   | LOW BATTERY              | Breaking |               |
| 4   | Door Open-2              | Breaking |               |
| 5   | HIGH TEMP (TAH)          | Breaking |               |
| 6   | DOOR ALARM               | Breaking |               |
| 7   | DC SPD FAULT             | Breaking |               |
| 8   |                          |          |               |
|     |                          |          |               |
|     |                          |          |               |
|     |                          |          |               |
|     |                          |          |               |

Closing: the alarm cable is open when no alarms are present Breaking: the alarm cable is closed when no alarms are present

<sup>\*\*</sup> Need to mark from site after alarm configuration



### **INSTALLATION CHECK LIST- RBS**

| 1 | telenor |
|---|---------|
|   |         |

|      |  | 111017 (1110 |                   |         |                 |
|------|--|--------------|-------------------|---------|-----------------|
| 78   | Prepared (also subject responsible if other) |              | Document No.      |         |                 |
| 4-07 | EMZ Zaw Myo Aung                             |              | 153 11-IPA 166 03 | 343 Uen |                 |
|      | Doc respons/Approved                         | Checked      | Date              | Rev.    | File            |
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**Project:** Telenor Myanmar

Site: SH4056

# **INSTALLATION CHECK LIST**

OK = Correctly installed, NOK = Not Correctly installed, N/A = Not applicable

# **INSTALLATION CHECK LIST**

OK = Correctly installed, NOK = Not Correctly installed, N/A = Not applicable

| A. | CABINET  | OK | NOK | N/A | COMMENTS        |
|----|--|----|-----|-----|-----------------|
| 1. | Cabinet clean and undamaged                    | OK |     |     |                 |
| 2. | Cabinet installed according to SID             | OK |     |     |                 |
| 3. | Cable lead-in (cable gland)                    | OK |     |     |                 |
| 4. | PDUs connected to correct fuse                 | ОК |     |     |                 |
| 5. | DC cable for RRUs and MU properly connected    | OK |     |     |                 |
| 6. | Grounded, washers in place and bolts tightened | OK |     |     | torque of 15 Nm |
| 7. | Grounding cable insulation undamaged           | OK |     |     |                 |

| В. | MAIN UNIT (MU)                                    | ок | NOK | N/A | COMMENTS |
|----|---|----|-----|-----|----------|
| 1. | Equipment clean and undamaged                     | OK |     |     |          |
| 2. | Installed according to allocation drawing         | OK |     |     |          |
| 3. | Minimum 50mm between MU & cabinet door            | OK |     |     |          |
| 4. | Minimum 50 mm at the rear of MU                   | OK |     |     |          |
| 5. | Power cable connected to correct fuse             | OK |     |     |          |
| 6. | All cables in the front properly connected        | OK |     |     |          |
| 7. | All screws tightened to correct torque            | OK |     |     |          |
| 8. | No cables damaged                                 | OK |     |     |          |
| 9. | Equipment labeled according to SID                | OK |     |     |          |
| 10 | Grounded, washers in place and bolts tightened    | OK |     |     |          |
| 11 | Grounding cable insulation undamaged              | OK |     |     |          |
| 12 | All cables have enough extra length to enable the | OK |     |     |          |
|    | removal of the main unit without damaging or      |    |     |     |          |

| C. | REMOTE RADIO UNIT (RRU)                        | ок | NOK | N/A | COMMENTS         |
|----|--|----|-----|-----|------------------|
| 1. | RRUS clean and undamaged                       | OK |     |     |                  |
| 2. | RRU installed as specified in SID              | OK |     |     |                  |
| 3. | RRU properly aligned horizontally & vertically | OK |     |     |                  |
| 4. | RRU mounting bracket tightened properly        | OK |     |     | torque of 41 Nm  |
| 5. | RRU Grounding installed and connected to MET   | OK |     |     |                  |
| 6. | Connector jumper tightened and sealed          | OK |     |     | torque of 25 Nm  |
| 7. | Installation cover for optical cable tightened | OK |     |     | torque of 1.7 Nm |
| 8. | RET cables routed correctly and tightened      | OK |     |     |                  |
| 9. | Power socket securely & correctly attached     | OK |     |     |                  |
| 10 | Protective covers installed on unused ports    | OK |     |     |                  |
| 11 | Optical cable undamaged                        | OK |     |     |                  |
| 12 | Equipment labeled according to SID             | OK |     |     |                  |
| 13 | Protective covers, dust caps, and terminations | OK |     |     |                  |
|    | plugs are installed on unused ports?           |    |     |     |                  |
| 14 | RET cable is correctly connected to ALD ctrl   | OK |     |     |                  |
|    | connector and tightened                        |    |     |     |                  |



### **INSTALLATION CHECK LIST- RBS**



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|-------|--|-------------------|-------------------|---------|-----------------|
| 58    | Prepared (also subject responsible if other) |                   | Document No.      |         |                 |
| 4-07- | EMZ Zaw Myo Aung                             |                   | 153 11-IPA 166 03 | 343 Uen |                 |
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Site: SH4056

| D. ANTENNA SYSTEM - RADIO   | ок       | NOK        | N/A      | COMMENTS       |
|---|----------|------------|----------|----------------|
| Antenna system installed as specified in SID  | OK       |            |          |                |
| Height, Azimuth and Tilt checked  | OK       |            |          |                |
| 3. No cables or connectors damaged  | OK       |            |          |                |
| 4. RF cables properly labeled   | OK       |            |          |                |
| 5. Connectors properly connected  | OK       |            |          |                |
| 6. Minimum bending of the RF cables correct   | OK       |            |          | radius of 50mm |
| 7. Correct cable connected to correct antenna port  | OK       |            |          |                |
| RET cable correctly connected & tightened   | OK       |            |          |                |
| Optical cables properly connected and strapped  | OK       |            |          |                |
| 10. Minimum bending of the optical cables correct   | OK       |            |          | radius of 40mm |
| 11. Antenna support bonded to tower   | OK       |            |          |                |
| 12. Tower legs earthed (minimum 2 legs)   | OK       |            |          |                |
|   | •        | •          | •        | •              |
| E. CONCLUDING ROUTINES  | OK       | NOK        | N/A      | COMMENTS       |
| SID marked for as-built   | OK       |            |          |                |
| 2. Labeling of the external cables  | OK       |            |          |                |
|   |          |            |          |                |
|   | OK       |            |          |                |
| Painting of cabinet scratching  | OK<br>OK |            |          |                |
| Painting of cabinet scratching     Site area cleaned     Site area cleaned  | OK       | 2.1 (#     |          | f. b. cla)     |
| 3. Painting of cabinet scratching 4. Site area cleaned 5.  All installation activities have been completed [ NO ] | OK       | S ] (if no | o, speci | fy below)      |

# Responsible Engineer (Ericsson)

Name Signature Date

Accepted by (Telenor)

Name Signature Date



# CHECK LIST (OHS)



|       |  |         | CITECK LIST (C | 110)     |            |       |
|-------|--|---------|----------------|----------|------------|-------|
| 28    | Prepared (also subject responsible if other) |         | Document No.   |          |            |       |
| 4-07- | EMZ Zaw Myo Aung                             |         | 176 27-IPA 166 | 0343 Uen | l          |       |
| 201   | Doc respons/Approved                         | Checked | Date           | Rev.     | File       |       |
| -A3   | EMZ Manoi Kumar A                            |         | 2019-07-17     | Α        | SDD SH4056 | Rev.A |

Project: Site: Telenor Myanmar SH4056

| MA | ANPOWER         | IOS. |
|----|-----------------|------|
| 1  | Site Supervisor | 1    |
| 2  | Team Leader     | 2    |
| 3  | Technician      | 3    |
| 4  | Laborers        | 2    |
| 5  | Others          | 1    |

| EQUIPMENT USED | NOS. |
|----------------|------|
| 1              |      |
| 2              |      |
| 3              |      |
| 4              |      |
| 5              |      |
| 6              |      |

| EQUIPMENT USED | NOS. |
|----------------|------|
| 7              |      |
| 8              |      |
| 9              |      |
| #              |      |
| #              |      |
| #              |      |

| WORK ACTIVITIES: |  |  |
|------------------|--|--|
|                  |  |  |

| Health & Safety Observation/Check list    | OK | NOK N/A | Comments |
|---|----|---------|----------|
| 1 Safety Shoe                             | OK |         |          |
| 2 Safety Gloves                           | OK |         |          |
| 3 Safety Helmets                          | OK |         |          |
| 4 Safety Belts                            | OK |         |          |
| 5 Arrangement for Emergency Evacuation    | OK |         |          |
| 6 Arrangement for Emergency Communication | OK |         |          |
| 7 Arrangement for First Aid               | OK |         |          |
| 8 Arrangement for Toilets / Washing       | OK |         |          |
| 9 Site Safety Protection                  | OK |         |          |
| 10 Security Guard at site                 | OK |         |          |

| OTHER MATTERS / ISSUES: |   |   |   |  |
|-------------------------|---|---|---|--|
|                         |   |   |   |  |
| ·                       | _ | • | • |  |

| OHS confirmed by (ASP): | Checked and Verified by: Ericson Myanmar Co. Ltd. |
|-------------------------|---|
|                         |   |
|                         |   |
|                         |   |
| Signature:              | Signature:  |
| Print Name:             | Print Name:                                       |
| Date:                   | Date:   |
|                         |   |







|      |  |  |         | 120111210111              |      |                  |  |  |
|------|--|--|---------|---------------------------|------|------------------|--|--|
| -58  | Prepared (also subject responsible if other) |  |         | Document No.              |      |                  |  |  |
| 4-07 | EMZ Zaw Myo Aung 0                           |  |         | 1/153 83-IPA 166 0343 Uen |      |                  |  |  |
| 201  | Doc respons/Approved                         |  | Checked | Date                      | Rev. | File             |  |  |
| PA3  | EMZ Manoj Kumar A                            |  |         | 2019-07-17                | Α    | SDD SH4056 Rev.A |  |  |

Project: Site: Telenor Myanmar SH4056

# **Test Record for Site Installation Verification**

| Date:                               | Site Name:         |      |           |             |      |
|-------------------------------------|--------------------|------|-----------|-------------|------|
| Site No.:                           | Cell Configuration | on:  |           |             |      |
| SH4056                              | G900               | RBS  | 6601      |             |      |
| RBS Type:                           | Testers Name:      |      |           |             |      |
| RBS 6601                            |                    |      |           |             |      |
|                                     |                    |      |           |             |      |
| NE Standalone test                  | Pass               | Fail | N/A       | Remark      |      |
| Incoming voltage verified           | ٧                  |      |           |             |      |
| Circuit breaker with correct rating | ٧                  |      |           |             |      |
| Cable connection inspected          | ٧                  |      |           |             |      |
| Cables properly labeled             | ٧                  |      |           |             |      |
| IDB parameter set                   | ٧                  |      |           |             |      |
| Fault Status Read                   | ٧                  |      |           |             |      |
| Internal alarm tested               | ٧                  |      |           |             |      |
| External alarm tested               | ٧                  |      |           |             |      |
| Antenna system test                 | ٧                  |      |           |             |      |
| Notes:                              |                    |      |           |             |      |
|                                     |                    |      |           |             |      |
| Responsible Engineer (Ericsson)     |                    |      |           |             |      |
| Name                                |                    | 5    | Signature | 9           | Date |
| Accepted by (Telenor)               |                    |      |           |             |      |
| Name                                |                    |      | Sianature | <del></del> | Date |

# **Test Record for Antenna System Tests**

| Site No.:                           |                |                    |             |  |
|-------------------------------------|----------------|--------------------|-------------|--|
|                                     | Cell Config    | uration:           |             |  |
| SH4056                              | GSM90          | 0 RBS 6601         |             |  |
| Testers Name:                       |                |                    |             |  |
| RBS Type:                           | Serial Num     | ber (Site Master): |             |  |
| RBS 6601                            |                |                    |             |  |
| stallation check                    |                |                    |             |  |
| Stallation Check                    | Cell A         |                    |             |  |
| Jumper Marking:                     | DX1            | DX2                | !           |  |
| Jumper Length :                     | 3              | 3                  | m           |  |
| Optical Cable Length:               |                |                    | m           |  |
| VSWR:                               |                |                    | < 1.4       |  |
| Cable Attenuation :                 |                |                    | db          |  |
|                                     | <u> </u>       |                    |             |  |
|                                     | Cell B         |                    |             |  |
| Jumper Marking:                     | DX1            | DX2                | 2           |  |
| Jumper Length:                      | 3              | 3                  | m           |  |
| Optical Cable Length:               |                |                    | m           |  |
| VSWR:                               |                |                    | < 1.4       |  |
| Cable Attenuation:                  |                |                    | db          |  |
| Jumper Marking :<br>Jumper Length : | Cell C  DX1  3 | DX2                | . m         |  |
| Optical Cable Length:               |                | 3                  | m           |  |
| VSWR:                               |                |                    | < 1.4       |  |
| Cable Attenuation :                 |                | <del></del>        | < 1.4<br>db |  |
| Cable Attenuation :                 |                |                    | αD          |  |
|                                     | Sector A       | Sector B           | Sector C    |  |
| Direction                           |                |                    |             |  |
| 1 a 1 · 1 <del>- 1</del> 12         |                |                    |             |  |
| Mechanical Tilt                     |                |                    |             |  |
| Electrical Tilt-GSM Mounting Height |                |                    |             |  |

# **Test Record for Site Integration**

| Date:           |                 |       | Site name:      |       |         |        |    |        |         |                      |           |      |
|-----------------|-----------------|-------|-----------------|-------|---------|--------|----|--------|---------|----------------------|-----------|------|
| Site No.:       |                 |       | Cell Configurat | tion: |         |        |    |        |         |                      |           |      |
| SH4056          |                 |       | GSM900 RBS 6601 |       |         | 1      |    |        |         |                      |           |      |
| RBS Type:       |                 |       | Testers Name    |       |         | •      |    |        |         |                      |           |      |
| RBS 6601        |                 |       |                 |       |         |        |    |        |         |                      |           |      |
|                 |                 |       | •               |       |         |        |    |        |         |                      |           |      |
|                 |                 |       |                 | ΙΡ    |         |        |    |        | VI      | AN                   |           |      |
| Abis over       | · IP            |       |                 |       |         |        |    |        |         | <i>,</i> (1 <b>1</b> |           |      |
| OAM             |                 |       |                 |       |         |        |    |        |         |                      |           |      |
|                 | S, MMS, SPEE    | D TES | ST              |       |         |        |    | ТЦРС   | II ICHD | III.                 | SPEED TES | T2   |
| Cell            | MO/MT Voice     | Call  | SMS             |       | MMS     |        |    | Down   |         | 01/                  | Upload    |      |
| Cell 1          | IVIO/IVIT VOICE | , Can | OIVIO           |       | IVIIVIO |        |    | DOWIII | aou     |                      | Орюац     |      |
| Cell 2          |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| Cell 3          |                 |       |                 |       |         |        |    |        |         |                      | †         |      |
| Cell 4          |                 |       |                 |       |         |        |    |        |         |                      | †         |      |
| Cell 5          |                 |       |                 |       |         |        |    |        |         |                      | †         |      |
| Cell 6          |                 |       |                 |       |         |        |    |        |         |                      |           |      |
|                 | l               |       |                 |       |         |        |    |        |         |                      | l         |      |
| <b>HANDOVER</b> | TEST            |       |                 |       |         |        |    |        |         |                      |           |      |
| A to B          | A to C          |       | B to A          | В     | to C    | C t    | οА |        | C to B  | ,                    | Remark    | Ĺ    |
|                 |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| EXTERNAL        | ALARM TEST      | Г     |                 |       |         |        |    |        |         |                      |           |      |
| Alm#            | Designation     |       |                 |       |         | Туре   |    | Pass   | Fail    |                      | Remarks   |      |
| 01 0            |                 |       |                 |       |         | Closin | g  |        |         |                      |           |      |
| 02 0            |                 |       |                 |       |         | Breaki |    |        |         |                      |           |      |
| 03 0            |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| 04 0            |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| 05 0            |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| 06 0            |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| 07 0            |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| 08              |                 |       |                 |       |         |        |    |        |         |                      |           |      |
|                 |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| Remarks:        |                 |       |                 |       |         |        |    |        |         |                      |           |      |
|                 |                 |       |                 |       |         |        |    |        |         |                      |           |      |
| Responsible     | Engineer (Eric  | sson) |                 |       |         |        |    |        |         |                      |           |      |
| Name            |                 |       |                 |       | Signat  | ure    |    |        |         |                      |           | Date |
| Accepted by     | (Telenor)       |       |                 |       |         |        |    |        |         |                      |           |      |
| Name            |                 |       |                 |       | Signat  | ure    |    |        |         |                      |           | Date |
| -               |                 |       |                 |       |         | -      |    |        |         |                      |           |      |

# **Test Record for Site Hardware Status**

| Date:                         | Site name:                   |        |  |  |  |  |
|-------------------------------|------------------------------|--------|--|--|--|--|
| Site No.:                     | Cell Configuration:          |        |  |  |  |  |
| SH4056                        | GSM900                       |        |  |  |  |  |
| RBS Type:                     | Testers Name:                |        |  |  |  |  |
| ##                            |                              |        |  |  |  |  |
| Power System                  | <u>.</u>                     |        |  |  |  |  |
| Unit                          | Product number               | Serial |  |  |  |  |
| DC power                      |                              |        |  |  |  |  |
| Rectifier Module #1           |                              |        |  |  |  |  |
| Rectifier Module #2           |                              |        |  |  |  |  |
| Rectifier Module #3           |                              |        |  |  |  |  |
| Rectifier Module #4           |                              |        |  |  |  |  |
| Battery                       |                              |        |  |  |  |  |
| Antonno                       | •                            |        |  |  |  |  |
| Antenna Unit                  | Product number               | Serial |  |  |  |  |
| Sector A                      | ADU451807v01                 | Senai  |  |  |  |  |
| Sector B                      | ADU451807v01                 |        |  |  |  |  |
| Sector C                      | ADU451807v01<br>ADU451807v01 |        |  |  |  |  |
| Sector C                      | [AD0431807V01                |        |  |  |  |  |
| RBS Cabinet                   |                              |        |  |  |  |  |
| Unit                          | Product number               | Serial |  |  |  |  |
| RBS 6601                      | 1/BFL901009/4                |        |  |  |  |  |
| DUG 20 01                     | KDU137569/1                  |        |  |  |  |  |
| TCU-02 01                     | KDU137739/1                  |        |  |  |  |  |
| RRU 01 B8,sector A            | KRC11871/2                   |        |  |  |  |  |
| RRU 01 B8,sector B            | KRC11871/2                   |        |  |  |  |  |
| RRU 01 B8,sector C            | KRC11871/2                   |        |  |  |  |  |
| Remarks:                      |                              |        |  |  |  |  |
| Responsible Engineer (Ericsso | n)                           |        |  |  |  |  |
| Name                          | Signature                    | Date   |  |  |  |  |
| Accepted by (Telenor)         |                              |        |  |  |  |  |
| Name                          | Signature                    | Date   |  |  |  |  |







| .58  | Prepared (also subject responsible if other) |         | Document No.              |      |                  |  |
|------|--|---------|---------------------------|------|------------------|--|
| 4-07 | EMZ Zaw Myo Aung                             |         | 2/153 83-IPA 166 0343 Uen |      |                  |  |
|      | Doc respons/Approved                         | Checked | Date                      | Rev. | File             |  |
| λ3   | FMZ Manoi Kumar A                            |         | 2019-07-17                | Α    | SDD_SH4056_Rev.A |  |

Telenor Myanmar SH4056 Project:

Site:

# **Test Record for Site Installation Verification**

| Date:                               | Site name:           |      |
|-------------------------------------|----------------------|------|
|                                     |                      |      |
| Site No.:                           | Cell Configuration:  |      |
| SH4056                              | W2100 2/2/2          |      |
| RBS Type:                           | Testers Name:        |      |
| RBS 6601                            |                      |      |
| NE Standalone test                  | Pass Fail N/A Remark |      |
| ncoming voltage verified            | v                    |      |
| Dircuit breaker with correct rating | V                    |      |
| Cable connection inspected          | V                    |      |
| Cables properly labeled             | V                    |      |
| Check configuration                 | V                    |      |
| Fault Status Read                   | V                    |      |
| nternal alarm tested                | V                    |      |
| External alarm tested               | V                    |      |
| Antenna system test                 | V                    |      |
| Notes:                              |                      |      |
|                                     |                      |      |
| Responsible Engineer (Ericsson)     |                      |      |
| Name                                | Signature            | Date |
| Accepted by (Telenor)               |                      |      |
| Name                                | Signature            | Date |







| 28  | Prepared (also subject responsible if other) |                           | Document No. |      |                  |
|-----|--|---------------------------|--------------|------|------------------|
| 17  | EMZ Zaw Myo Aung                             | 2/153 83-IPA 166 0343 Uen |              |      |                  |
|     | Doc respons/Approved                         | Checked                   | Date         | Rev. | File             |
| PA3 | EMZ Manoj Kumar A                            |                           | 2019-07-17   | Α    | SDD_SH4056_Rev.A |

Project: Site: Telenor Myanmar SH4056

# **Test Record for Antenna System Tests**

| Date:                        | Site name:         |              |        |      |  |  |  |
|------------------------------|--------------------|--------------|--------|------|--|--|--|
|                              |                    |              |        |      |  |  |  |
| Site No.:                    | Cell Configuration | n:           |        |      |  |  |  |
| SH4056                       |                    |              |        |      |  |  |  |
| Testers Name:                |                    |              |        |      |  |  |  |
| RBS Type:                    | Serial Number (S   | ite Master): |        |      |  |  |  |
| RBS 6601                     |                    |              |        |      |  |  |  |
| Installation check           |                    |              |        |      |  |  |  |
| installation check           | Ш                  |              |        |      |  |  |  |
| I and A Marillan             | Sector 1           | I n          | 1      |      |  |  |  |
| Jumper Marking:              | A                  | В            |        |      |  |  |  |
| Jumper Length:               | 3                  | 3            | m      |      |  |  |  |
| VSWR:                        |                    |              | < 1.4  |      |  |  |  |
| DTF:                         |                    |              | < 1.05 |      |  |  |  |
| Cable Attenuation:           |                    |              | db     |      |  |  |  |
|                              |                    |              |        |      |  |  |  |
|                              | Sector 2           |              | Ī      |      |  |  |  |
| Jumper Marking:              | A                  | В            |        |      |  |  |  |
| Jumper Length:               | 3                  | 3            | m      |      |  |  |  |
| VSWR:                        |                    |              | < 1.4  |      |  |  |  |
| DTF:                         |                    |              | < 1.05 |      |  |  |  |
| Cable Attenuation:           |                    |              | db     |      |  |  |  |
|                              |                    |              |        |      |  |  |  |
| luman au Maultin au          | Sector 3           | In           | 1      |      |  |  |  |
| Jumper Marking:              | A                  | В            |        |      |  |  |  |
| Jumper Length:               | 3                  | 3            | m      |      |  |  |  |
| VSWR:                        |                    |              | < 1.4  |      |  |  |  |
| DTF:                         |                    |              | < 1.05 |      |  |  |  |
| Cable Attenuation:           |                    |              | db     |      |  |  |  |
|                              |                    |              |        |      |  |  |  |
|                              |                    |              |        |      |  |  |  |
| Responsible Engineer (Ericss | on)                |              |        |      |  |  |  |
| Name                         |                    | Signature    |        | Date |  |  |  |
| Accepted by (Telenor)        |                    |              |        |      |  |  |  |
| Name                         |                    | Signature    |        | Date |  |  |  |







| _    |  |                           | <b>TEST REPORT</b> | <b>RBS - W2</b> | 100              |
|------|--|---------------------------|--------------------|-----------------|------------------|
| 8, F | Prepared (also subject responsible if other) |                           | Document No.       |                 |                  |
| 4-07 | EMZ Zaw Myo Aung                             | 2/153 83-IPA 166 0343 Uen |                    |                 |                  |
| 201  | Ooc respons/Approved                         | Checked                   | Date               | Rev.            | File             |
| PA3  | EMZ Manoj Kumar A                            |                           | 2019-07-17         | Α               | SDD_SH4056_Rev.A |
| ı    | Project: Telenor Myanmar                     |                           |                    |                 |                  |

Sit

| te:                           | SH4056    |                    | Record for    | Site Inte | gration  |      |        |    |          |
|-------------------------------|-----------|--------------------|---------------|-----------|----------|------|--------|----|----------|
| Date:                         |           |                    | Site name:    |           |          |      |        |    |          |
|                               |           |                    |               |           |          |      |        |    |          |
| Site No.: Cell Configuration: |           |                    |               |           |          |      |        |    |          |
| SH4056                        |           |                    | W2100         | 2/2/2     |          |      |        |    |          |
| RBS Type:<br>RBS 660°         | 1         |                    | Testers Name: |           |          |      |        |    |          |
| IXEC COC                      | •         |                    |               |           |          |      |        |    |          |
| None                          |           |                    |               |           | IP       |      |        |    | Checked  |
| NODE                          |           |                    |               |           |          |      |        |    | -        |
| OAM                           |           |                    |               |           |          |      |        |    |          |
| RNC I                         | vame      |                    |               |           |          |      |        |    |          |
| VOICE, V                      | IDEO, S   | M <u>S, MMS, S</u> |               |           |          |      |        |    |          |
| r_                            | T         |                    | RIGINATING/   |           |          | G    |        |    | UT/SPEED |
| Sector                        | Carrier   | Voice call         | Video call    | SMS       | MMS      |      | Downlo | ad | Upload   |
| Sector 1                      | 1         |                    |               |           |          |      |        |    |          |
|                               | 2         |                    |               |           |          |      |        |    |          |
| Sector 2                      | 2         |                    |               |           |          |      |        |    |          |
|                               | 1         |                    |               |           |          |      |        |    |          |
| Sector 3                      | 2         |                    |               |           |          |      |        |    |          |
| 0                             | 1         |                    |               |           |          |      |        |    |          |
| Sector 4                      | 2         |                    |               |           |          |      |        |    |          |
| Sector 5                      | 1         |                    |               |           |          |      |        |    |          |
| 3600013                       | 2         |                    |               |           |          |      |        |    |          |
| Sector 6                      | 1         |                    |               |           |          |      |        |    |          |
|                               | 2         |                    |               |           |          |      | ļ      |    |          |
| HANDOV                        | ER TES    | Т                  |               |           |          |      |        |    |          |
| 1 to                          | 2         | 1 to 3             | 2 to 1        | 2 to 3    | 3 to 1   |      | 3 to 2 |    | Remark   |
|                               |           |                    |               |           |          |      |        |    |          |
| EXTERN                        | ΔΙ ΔΙ ΔΙ  | RM TEST            |               |           |          |      |        |    |          |
| Alm#                          |           | gnation            |               |           | Туре     | Pass | Fail   | Re | emarks   |
| 01                            |           | <u>J</u>           |               |           | Closing  |      |        |    |          |
| 02                            |           |                    |               |           | Breaking |      |        |    |          |
| 03                            |           |                    |               |           |          |      |        |    |          |
| 04                            |           |                    |               |           |          |      |        |    |          |
| 05                            |           |                    |               |           |          |      |        |    |          |
| 06                            |           |                    |               |           |          |      |        |    |          |
| 07                            |           |                    |               |           |          |      |        |    |          |
| 08                            |           |                    |               |           |          | ļ    |        |    |          |
| Remarks:                      |           |                    |               |           |          |      |        |    |          |
| Responsi                      | ble Engir | neer (Ericssor     | 1)            |           |          |      |        |    |          |
| Name                          |           |                    |               | Signa     | ature    |      |        |    | Date     |
| A 1 1                         | · (Ŧ.)    |                    |               |           |          |      |        |    |          |

Accepted by (Telenor)







| 28  | Prepared (also subject responsible if other) |         | Document No.              |      |                  |
|-----|--|---------|---------------------------|------|------------------|
| 17  |  |         | 2/153 83-IPA 166 0343 Uen |      |                  |
|     | Doc respons/Approved                         | Checked | Date                      | Rev. | File             |
| PA3 | EMZ Manoj Kumar A                            |         | 2019-07-17                | Α    | SDD_SH4056_Rev.A |

**Project:** Telenor Myanmar

Site: SH4056

# **Test Record for Site Hardware Status**

| Date:     | Site name:          |
|-----------|---------------------|
|           |                     |
| Site No.: | Cell Configuration: |
| SH4056    | W2100 2/2/2         |
| RBS Type: | Testers Name:       |
| RBS 6601  |                     |

# **Power System**

| Unit                | Product number | Serial |
|---------------------|----------------|--------|
| DC power            |                |        |
| Rectifier Module #1 |                |        |
| Rectifier Module #2 |                |        |
| Rectifier Module #3 |                |        |
| Rectifier Module #4 |                |        |
| Battery             |                |        |

# **Antenna**

| Unit                                  | Product number    | Serial |
|---------------------------------------|-------------------|--------|
| DXX-790-960/1710-2180-65/65-17.5i/18. |                   |        |
| DXX-790-960/1710-2180-65/65-17.5i/18. |                   |        |
| DXX-790-960/1710-2180-65/65-17.5i/18. | 5i-N ADU451807v01 |        |

# **RBS Cabinet**

| Unit               | Product number | Serial |
|--------------------|----------------|--------|
| RBS 6601           | 1/BFL901009/4  |        |
| DUW31              | KDU127174/3    |        |
| RRU 12 B1,sector A | KRC161297/2    |        |
| RRU 12 B1,sector B | KRC161297/2    |        |
| RRU 12 B1,sector C | KRC161297/2    |        |

| Remarks:                     |           |      |
|------------------------------|-----------|------|
| Responsible Engineer (Ericss | on)       |      |
| Name                         | Signature | Date |
| Accepted by (Telenor)        |           |      |
| Name                         | Signature | Date |



### PRODUCT LIST

| 1 |        |
|---|--------|
| 6 | teleno |

| -58  | Prepared (also subject responsible if other) | Document No.              |            |      |                  |
|------|--|---------------------------|------------|------|------------------|
| 4-07 | EMZ Zaw Myo Aung                             | 1/193 32-IPA 166 0343 Uen |            |      |                  |
|      |  | Checked                   | Date       | Rev. | File             |
| PA3  | EMZ Manoj Kumar A                            |                           | 2019-07-17 | Α    | SDD_SH4056_Rev.A |

Project: Site: Telenor Myanmar SH4056 SH4056 -

| <u>UNIT</u> | PRODUCT CODE | REV | SERIAL No. | MFG.DATE |
|-------------|--------------|-----|------------|----------|

| <u>UNIT</u>                   | PRODUCT CODE        | <u>REV</u> | SERIAL No.      | MFG.DATE |
|-------------------------------|---------------------|------------|-----------------|----------|
|                               |                     |            |                 |          |
| GSM 900                       |                     |            |                 |          |
| RBS 6601                      | 1/BFL901009/4       |            | D821042164      |          |
| DUG 20 01; Digital Unit       | KDU137569/1         |            | CD3F023910      |          |
| TCU 02 01;Transport Con. Unit | KDU137739/1         |            | TU8XAF0769      |          |
| RRU 01 B8, sector A           | KRC161297/2         |            | D820835372      |          |
| RRU 01 B8, sector B           | KRC161297/2         |            | D820450913      |          |
| RRU 01 B8, sector C           | KRC161297/2         |            | D820337864      |          |
| WCDMA 2100                    |                     |            |                 |          |
| RBS 6601                      | 1/BFL901009/4       |            | D827779594      |          |
| 'DUW31                        | KDU127174/3         |            | N/A             |          |
| RRUS 12 B1,sector A           | KRC161297/2         |            | D16T624416      |          |
| RRUS 12 B1,sector B           | KRC161297/2         |            | D823345138      |          |
| RRUS 12 B1,sector C           | KRC161297/2         |            | CN30862863      |          |
| ANTENNA                       |                     |            |                 |          |
| Sec1- DXX-790-960/1710-2180-6 | 5/65-1 ADU451807v01 |            | N/A             |          |
| Sec2- DXX-790-960/1710-2180-6 | 5/65-1 ADU451807v01 |            | N/A             |          |
| Sec3- DXX-790-960/1710-2180-6 | 5/65-1 ADU451807v01 |            | N/A             |          |
| RET                           |                     |            |                 |          |
| RCU136 Cell A GSM             | 27150136            |            | HWB987601355143 | 36A5A    |
| RCU136 Cell B GSM             | 27150136            |            | HWB562813314153 | 32YWR    |
| RCU136 Cell C GSM             | 27150136            |            | HWB201737565154 | 13N64    |
| RCU136 Cell A UMTS            | 27150136            |            | HWB422016866153 | 32VLB    |
| RCU136 Cell B UMTS            | 27150136            |            | HWB711378711154 |          |
| RCU136 Cell C UMTS            | 27150136            |            | HWB371516751154 | 144BH    |
| CABINET                       |                     |            |                 |          |
| EAB-ESOF009EAE01              | Type I Cabinet      |            | N/A             |          |





| Prepared (also subject responsible if other) | Document No. | Document No.   |                              |                  |  |
|--|--------------|----------------|------------------------------|------------------|--|
| EMZ Zaw Myo Aung                             |              | PHT-09:0001-II | PHT-09:0001-IPA 166 0343 Uen |                  |  |
| Doc respons/Approved                         | Checked      | Date           | Rev.                         | File             |  |
| ≝ EMZ Manoj Kumar A                          |              | 2019-07-17     | Α                            | SDD_SH4056_Rev.A |  |

Project: Site: Telenor Myanmar SH4056



# **Tower View**







|   |         | 0112111010    |           |                  |  |
|---|---------|---------------|-----------|------------------|--|
| <sup>∞</sup> Prepared (also subject responsible if other) |         | Document No.  |           |                  |  |
| È EMZ Zaw Myo Aung  |         | PHT-09:0001-I | PA 166 03 | 43 Uen           |  |
| Doc respons/Approved                                      | Checked | Date          | Rev.      | File             |  |
| <sup>8</sup> EMZ Manoi Kumar A                            |         | 2019-07-17    | Α         | SDD_SH4056_Rev.A |  |

Telenor Myanmar SH4056 Project:

Site: **Vertical Cable Ladder** 



# **Horizontial Cable Ladder**



Antenna Cell A



Antenna Cell B

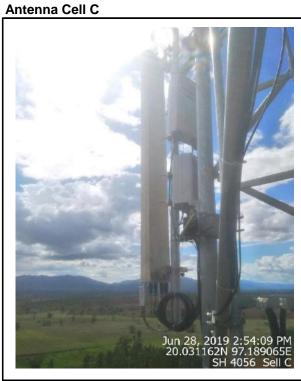




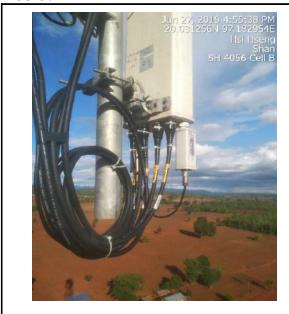


| Prepared (also subject responsible if other) |         | Document No.   |            |                  |
|--|---------|----------------|------------|------------------|
| È EMZ Zaw Myo Aung                           |         | PHT-09:0001-II | PA 166 034 | l3 Uen           |
| Doc respons/Approved                         | Checked | Date           | Rev.       | File             |
| ≝ EMZ Manoj Kumar A                          |         | 2019-07-17     | Α          | SDD_SH4056_Rev.A |

Project: Site: Telenor Myanmar SH4056



# RCU Cell B



# **RCU Cell A**



# RCU Cell C



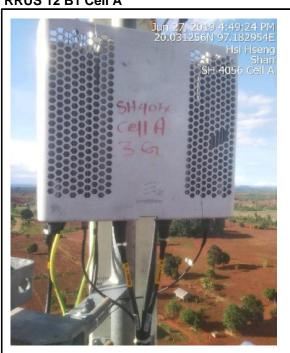




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|--|---------|---------------|-----------|------------------|--|
| Prepared (also subject responsible if other) |         | Document No.  |           |                  |  |
| È EMZ Zaw Myo Aung                           |         | PHT-09:0001-I | PA 166 03 | 43 Uen           |  |
| Doc respons/Approved                         | Checked | Date          | Rev.      | File             |  |
| <sup>8</sup> EMZ Manoi Kumar A               |         | 2019-07-17    | Α         | SDD_SH4056_Rev.A |  |

Project: **Telenor Myanmar** 

Site: SH4056 RRUS 12 B1 Cell A



RRUS 12 B1 Cell C



RRUS 12 B1 Cell B



Earth Bar for RRU



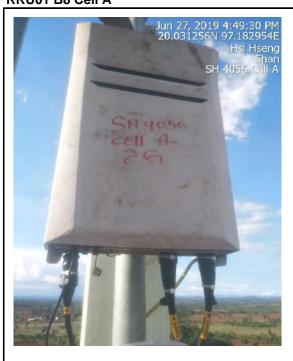


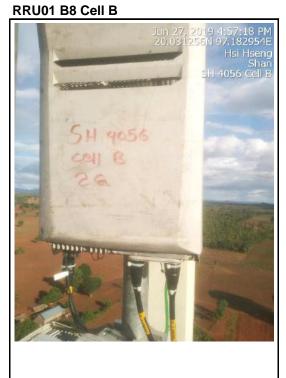
| telenor |
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|                      |                             |         | 011 = 1 110 10 |            |                  |  |
|----------------------|-----------------------------|---------|----------------|------------|------------------|--|
| % Prepared (also sub | eject responsible if other) |         | Document No.   |            |                  |  |
| EMZ Zaw My           | o Aung                      |         | PHT-09:0001-   | IPA 166 03 | 43 Uen           |  |
| Doc respons/Appro    | oved                        | Checked | Date           | Rev.       | File             |  |
| ₹ EMZ Manoi k        | Kumar A                     |         | 2019-07-17     | Α          | SDD_SH4056_Rev.A |  |

Project: **Telenor Myanmar** 

Site: SH4056 RRU01 B8 Cell A





RRU01 B8 Cell C



Earth Bar for RRU





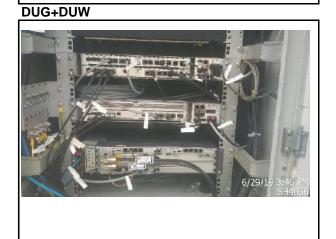


| Prepared (also subject responsible if other) |         | Document No.  |                        |                  |
|--|---------|---------------|------------------------|------------------|
| EMZ Zaw Myo Aung                             |         | PHT-09:0001-I | PA 166 03 <sub>4</sub> | 43 Uen           |
| Doc respons/Approved                         | Checked | Date          | Rev.                   | File             |
|  |         | 2019-07-17    | Α                      | SDD SH4056 Rev.A |

Project: **Telenor Myanmar** Site: **SH4056** 

Cabinet (Close)





# Cabinet (Open)



# DCDU





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|                      |                             |         | 011 = 1 110 10 |            |                  |  |
|----------------------|-----------------------------|---------|----------------|------------|------------------|--|
| % Prepared (also sub | eject responsible if other) |         | Document No.   |            |                  |  |
| EMZ Zaw My           | o Aung                      |         | PHT-09:0001-   | IPA 166 03 | 43 Uen           |  |
| Doc respons/Appro    | oved                        | Checked | Date           | Rev.       | File             |  |
| ₹ EMZ Manoi k        | Kumar A                     |         | 2019-07-17     | Α          | SDD_SH4056_Rev.A |  |

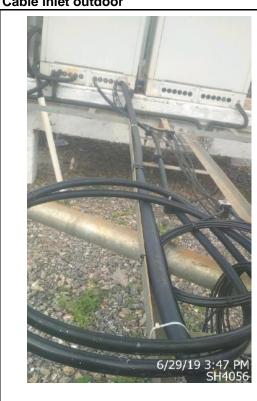
Telenor Myanmar SH4056 Project:

Site:

# **External Alarm connection (with clear Label)**



Cable inlet outdoor



# **External Alarm connection (with clear Label)**



Cable inlet outdoor





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|  |         | 0112111010    |           |                  |  |
|--|---------|---------------|-----------|------------------|--|
| Prepared (also subject responsible if other) |         | Document No.  |           |                  |  |
| È EMZ Zaw Myo Aung                           |         | PHT-09:0001-I | PA 166 03 | 43 Uen           |  |
| Doc respons/Approved                         | Checked | Date          | Rev.      | File             |  |
| <sup>8</sup> EMZ Manoi Kumar A               |         | 2019-07-17    | Α         | SDD_SH4056_Rev.A |  |

Telenor Myanmar SH4056 Project:

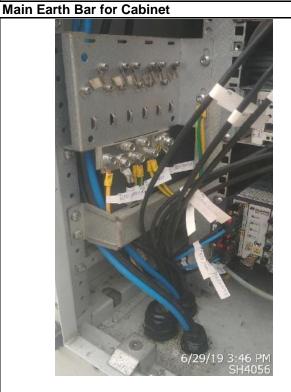
Site:

# **AC Power cable at Telecom Cabinet**



**AC Power cable at AC Box** 





**Earth Bar Cabinet** 







| Prepared (also subject responsible if other) |         | Document No.  |            |                  |
|--|---------|---------------|------------|------------------|
| EMZ Zaw Myo Aung                             |         | PHT-09:0001-I | PA 166 034 | 43 Uen           |
| Doc respons/Approved                         | Checked | Date          | Rev.       | File             |
| ≝ EMZ Manoj Kumar A                          |         | 2019-07-17    | Α          | SDD_SH4056_Rev.A |

Telenor Myanmar SH4056 Project:

Site: **Site Cleaned Photos** 

**Site Cleaned Photo** 







| .28  | Prepared (also subject responsible if other) |         | Document No.   |          |                  |
|------|--|---------|----------------|----------|------------------|
| 4-07 | EMZ Zaw Myo Aung                             |         | 179 61-IPA 166 | 0343 Uen |                  |
| 201  | Doc respons/Approved                         | Checked | Date           | Rev.     | File             |
| PA3  | EMZ Manoj Kumar A                            |         | 2019-07-17     | Α        | SDD_SH4056_Rev.A |

**Project:** Telenor Myanmar

Site: SH4056

### **NETWORK ELEMENT ACCEPTANCE CERTIFICATE**

This is to certify that Ericsson Radio Systems AB has delivered, installed and tested the Network Elements on site SH4056 as defined in PO\_NS\_000017 and PO\_NS\_000018

PO RBS: PO\_NS\_000017 PO TRM: PO\_NS\_000018

PO Antenna:

The Network element acceptance has been performed in accordance with the procedures described in above mentioned contract. Further reference should be made to the acceptance documents. The Network element passed the acceptance with remarks per attached test report.

TEST DOCUMENTS

RBS 6601 Test Report - G900

RBS 6601 Test Report - W2100

Test Report (TRM Functional)

Documents Number

##

2/153 83-IPA 166 0343 Uen rev A

##

| Date:  |                                  |
|--------|----------------------------------|
| for    | for                              |
|        | Ericsson Myanmar<br>(The Vendor) |
| Name:  | Name:                            |
| Title: | Title:                           |