



4.5G-LTE  
800&1800&2600Mhz

ÖLÇEKLİ YERLEŞİM VE GÜVENLİK  
MESAFESİ PLANLARI  
REVİZYON

SİTE NO :	LBT0806
SİTE ADI :	VEYSEL KARANİ CAD.
KURULACAĞI ADRES :	KİSMET MAH. 17.SOK. NO:48 VEYSEL KARANİ CAD. MERKEZ / BATMAN
KOORDİNATLAR :	N 37° 52' 49,36" E 41° 07' 03,64"

# Türk Telekom



<b>SİTE NO :</b>	<b>LBT0806</b>
<b>SİTE ADI :</b>	<b>VEYSEL KARANI CAD.</b>

- 1- LTE 2600 BAND İLAVESİ YAPILACAK.
- 2- MEVCUTTA BULUNAN 2G&3G2100&3GU900&LTE800+1800 OLARAK ÇALIŞAN 3 ADET AQU4517R4 ANTEN DEMONTE EDİLEREK YERİNE 3 ADET ASI4518R53 ANTEN MONTAJI YAPILACAKTIR.ASI4518R53 ANTENLERE LTE2600 İLAVESİ YAPILACAKTIR.
- 3-
- 4-
- 5-

LBT0806  
Tarih: 18.01.2021

### ANTEN TESİSİ BAŞVURU FORMU

18 Mart Tarih ve 27878 sayılı Resmi Gazete 'de yayımlanarak yürürlüğe giren Hücresel Sistem Anten Tesislerinin Tasarımı ve Paylaşımına İlişkin ve Esaslar Hakkında Yönetmelikte (HSAT) yer alan hükümlere uygun olarak ~~Yeni bir anten tesisi~~ / Mevcut anten tesisi paylaşımı yoluyla kurulması planlanan sistemimiz için gerekli izinlerin verilmesi hususunu tensiplerinize arz ederiz

Kaşe / İmza

#### KURULMASI PLANLANAN ANTEN TESİSİNE AİT BİLGİLER:

SİTE NO: LBT0806  
KOORDİNAT: N 37° 52' 49,36" E 41° 07' 03,64"  
KURULACAĞI YER: ÇATI ÜZERİ  
KURULACAĞI ADRES: KISMET MAH. 17.SOK. NO:48 VEYSEL KARANİ CAD.  
KURULACAĞI İL: BATMAN  
İLÇE: MERKEZ

#### YENİ ANTEN SİSTEMİ KURMA GEREKÇESİ(LERİ) :

- 1- KAPSAMA PROBLEMLERİ ☒  
2- MÜŞTERİ ŞİKAYETLERİ ☒  
3- KALİTE PROBLEMLERİ  
4- KAPASİTE PROBLEMLERİ

#### GEREKÇELERE İLİŞKİN BELGELER:

- 1- EK-B 4- KROKİLER  
2- EK-D 5-GOOGLE EARTH  
3- FOTOĞRAFLAR 6-ANTEN KATALOĞU

#### PAYLAŞILACAK İLAVE KAPASİTE BİLGİLERİ:

Tip1:.....İşletmeci

Tip2:.....İşletmeci

Tip3:.....İşletmeci

#### II. PAYLAŞILAN ANTEN TESİSİ:

TESİS PAYLAŞIMI YAPILAN İŞLETMECİ:


TT MOBİL

MEVCUT TESİSDEKİ İLK KURULAN SİSTEME AİT SİTE ID:

BT0806-WBT0806-UBT0806-LBT0806

#### PAYLAŞIM TİPLERİ:

<input checked="" type="checkbox"/>	Tip 1: Arazi ve/veya bina paylaşımı
<input type="checkbox"/>	Tip 2: Kule veya direk paylaşımı
<input checked="" type="checkbox"/>	Tip 3: Kanal ve/veya boruların paylaşımı
<input checked="" type="checkbox"/>	Tip 4: Oda/konteyner ve iklimlendirme sistemlerinin paylaşımı
<input checked="" type="checkbox"/>	Tip 5: Anten ve anten elemanlarının paylaşımı
<input checked="" type="checkbox"/>	Tip 6: Ses/veri iletim ve ekipmanların paylaşımı

		SABİT TELEKOMÜNİKASYON CİHAZI											
		MÜRACAAT DEĞERLENDİRME FORMU											
		MEVCUT			YENİ								
		H	T	R	H	T	R						
İŞLETMECİ/İŞLETİCİNİN AD/ÜNVANI												AÇIKLAMALAR	
ŞİRKET ADI VE YAYIN LOGOSU												TT MOBİL İLETİŞİM HİZMETLERİ A.Ş.	
CHAZIN KURULU BULUNDUĞU AÇIK ADRES												Türk Telekom	
KİSMET MAH. 17.SOK. NO:48 VEYSEL KARANİ CAD. MERKEZ / BATMAN													
KOORDİNAT												N 37° 52' 49,36"	
SİTE ID												E 41° 07' 03,64"	
MARKA												LBT0806	
MODEL												NOKIA	
KATOLOG ÇIKIŞ GÜCÜ (Watt)												AIR SCALE	
												80 W	
												SEKTÖR 1	
												SEKTÖR 2	
												SEKTÖR 3	
KULLANILAN FREKANS													
KULLANILAN MAXIMUM ÇIKIŞ GÜCÜ (Watt)													
ANTEN KAZANCI (dBi)													
ANTEN SAYISI													
ANTEN TİPİ													
*ANTEN YAYIN PATERNİ (Kroki Üzerinde)													
ANTENİN YERDEN YÜKSEKLİĞİ													
YETKİSİZ ERIŞİM (Balkon-Teras)													
BİNA YÜZEYİNE YANSITICI LEVHA													
GÜVENLİK MESAFESİ (m.)													
* SAĞLIK KURULUŞU BİNASINA GÖRE													
* OKUL BAĞÇE DUVARI SINIRINA GÖRE													
* GEREKÇE RAPORU													
* TELSİZ KULLANIM ŞEMASI													
* İLGİLİ TK FORMLARI													
* KAPASİTE RAPORU													
* İMZA SİRKÜLERİ													
* VERGİ LEVHASI													
* ÇALIŞANLARIN SİGORTA BİLDİRGESİ													
* TİCARET SİCİL GAZETESİ													
* SÖZLEŞME FOTOKOPİSİ													
* ARAÇ RUHSAT FOTOKOPİSİ													
* ÖLÇEKLİ YERLEŞİM KROKİSİ													
* ANTEN MONTAJ YERİ KROKİSİ													
* TOPRAKLAMA SİSTEMİ													
* PARATONER													
* SIVİL HAVACILIK TEDBİRLERİ													
İŞLETME/ İŞLETMECİ:												KONTROL:	
TT MOBİL													
İLETİŞİM HİZMETLERİ A.Ş.													
<small>           B) Hizmet Binası, Y. Telsiz Sistemi B. Radyo, TV Yönlendirici            * Ayrıca bilgileri güncel olacak veya belge türünde belirtilenler olacaktır         </small>													

SITE ADI	VEYSEL KARANİ CAD.
SITE NO	LBT0806
SITE ADRES	KISMET MAH. 17.SOK. NO:48 VEYSEL KARANİ CAD. MERKEZ / BATMAN

**YETKİSİZ ERİŞİMİN ENGELLENMESİ:**

İSTASYONA YETKİSİZ ERİŞİM TERAS KAPISI KİLİTLENEREK ENGELLENMEKTEDİR.

**BİNA YÜZEYİNDE YANSITICI LEVHA DURUMU:**

KULLANILMAYACAKTIR.

**ÇOCUK OYUN PARKI DURUMU:**

GÜVENLİK MESAFESİ İÇİNDE ÇOCUKLAR İÇİN AYRILMIŞ OYUN ALANLARI SINIRI YOKTUR.

**TOPRAKLAMA DURUMU**

MEVCUTTUR VE DİRENCİ 5 OHM UN ALTINDADIR.

**PARATONER DURUMU:**

MEVCUTTUR.

**SİVİL HAVACILIK TEDBİRLERİ:**

GEREKMEMEKTEDİR.

Hazırlayan	Yetkili İmza	Site No - Adı	
		LBT0806	VEYSEL KARANİ CAD.
		Koordinatlar	
		N= 37° 52' 49,36"	E= 41° 07' 03,64"

<b>Düzenleyen – Prepared</b> NOKIA	<b>Sorumlu - Subject responsible</b> TT MOBİL İLETİŞİM HİZMETLERİ A.Ş.	<b>İstasyon İsmi - Site Name</b> VEYSEL KARANİ CAD.
<b>Onaylayan - Doc.Respons/Approved</b>	<b>Tarih – Date</b> 18.01.2021	<b>Dosya - Reference File</b> LBT0806

**SAHA GENEL GÖRÜNÜM**

MEVCUT TT MOBİL SAHASININ BULUNDUĞU BİNA h:19+6m



Approved	Signature	Date
		18.01.2021

<b>Düzenleyen – Prepared</b> NOKIA	<b>Sorumlu - Subject responsible</b> TT MOBİL İLETİŞİM HİZMETLERİ A.Ş.	<b>İstasyon İsmi - Site Name</b> VEYSEL KARANİ CAD.
<b>Onaylayan - Doc.Respons/Approved</b>	<b>Tarih – Date</b> 18.01.2021	<b>Dosya - Reference File</b> LBT0806

## SİSTEM VE ANTEN YERLEŞİMİ



4,5G-CELL.1 (140°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

4,5G-CELL.3 (340°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

4,5G-CELL.2 (240°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

MEVCUTTA BULUNAN 2G&3G2100&3GU900&LTE800+1800  
OLARAK ÇALIŞAN 3 ADET AQU4517R4 ANTEN DEMONTE  
EDİLEREK YERİNE 3 ADET ASI4518R53 ANTEN MONTAJI  
YAPILACAKTIR.ASI4518R53 ANTENLERE LTE2600 İLAVESİ  
YAPILACAKTIR.

Approved	Signature	Date
		18.01.2021



<b>Düzenleyen – Prepared</b> NOKIA	<b>Sorumlu - Subject responsible</b> TT MOBİL İLETİŞİM HİZMETLERİ A.Ş.	<b>İstasyon İsmi - Site Name</b> VEYSEL KARANİ CAD.
<b>Onaylayan - Doc.Respons/Approved</b>	<b>Tarih – Date</b> 18.01.2021	<b>Dosya - Reference File</b> LBT0806

**4.5G SEKTÖR YÖNLERİ****1.SEKTÖR 140° BAKIŞ YÖNÜ****2.SEKTÖR 240° BAKIŞ YÖNÜ**

Approved	Signature	Date
		18.01.2021

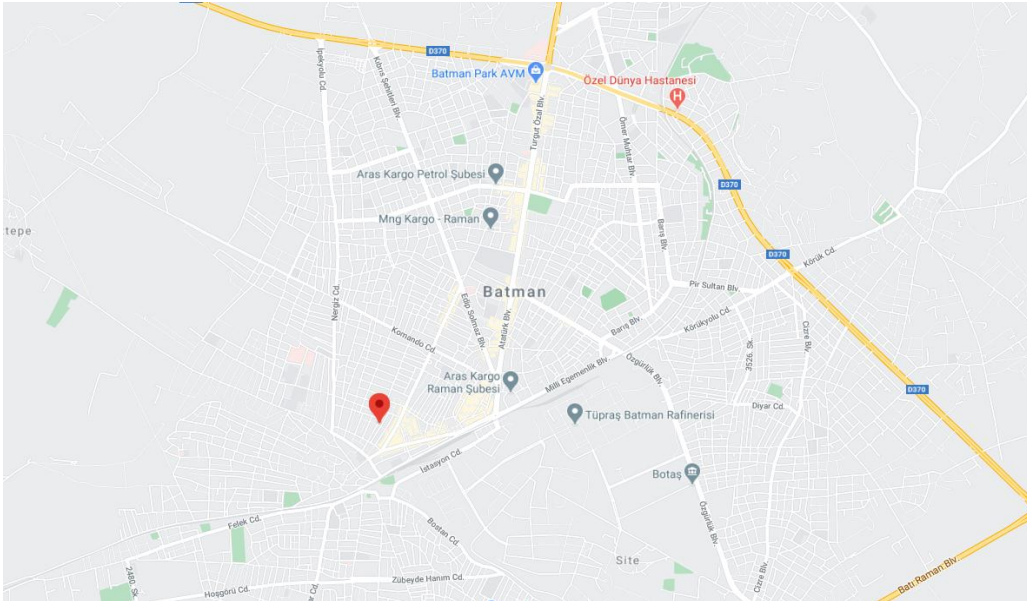
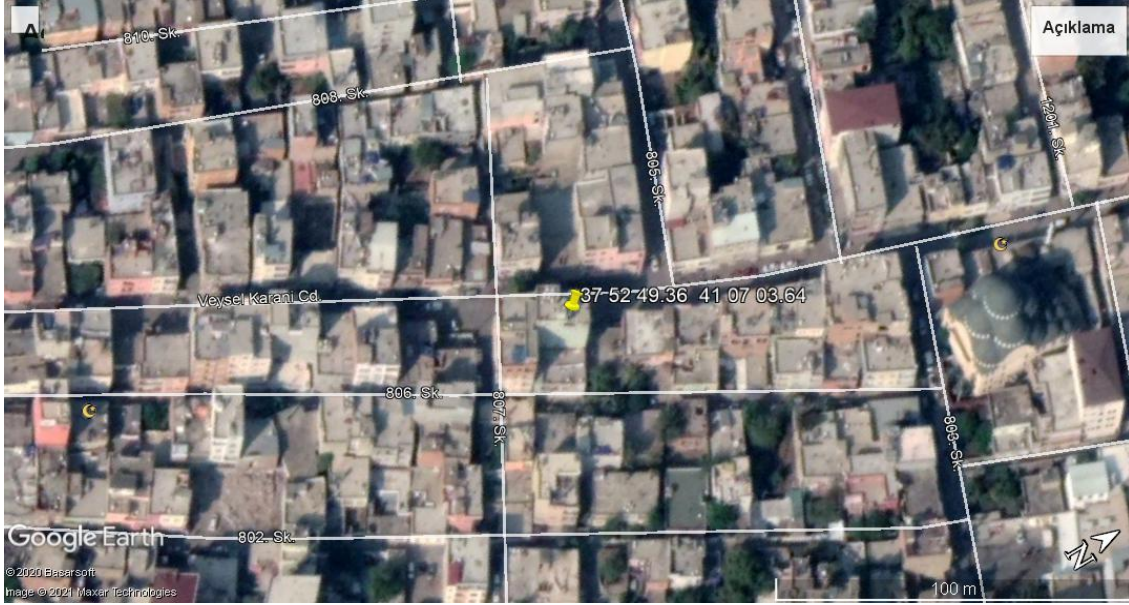


<b>Düzenleyen – Prepared</b> NOKIA	<b>Sorumlu - Subject responsible</b> TT MOBİL İLETİŞİM HİZMETLERİ A.Ş.	<b>İstasyon İsmi - Site Name</b> VEYSEL KARANİ CAD.
<b>Onaylayan - Doc.Respons/Approved</b>	<b>Tarih – Date</b> 18.01.2021	<b>Dosya - Reference File</b> LBT0806

**4.5G SEKTÖR YÖNLERİ****3.SEKTÖR 340° BAKIŞ YÖNÜ**

<b>Approved</b>	<b>Signature</b>	<b>Date</b>
		18.01.2021

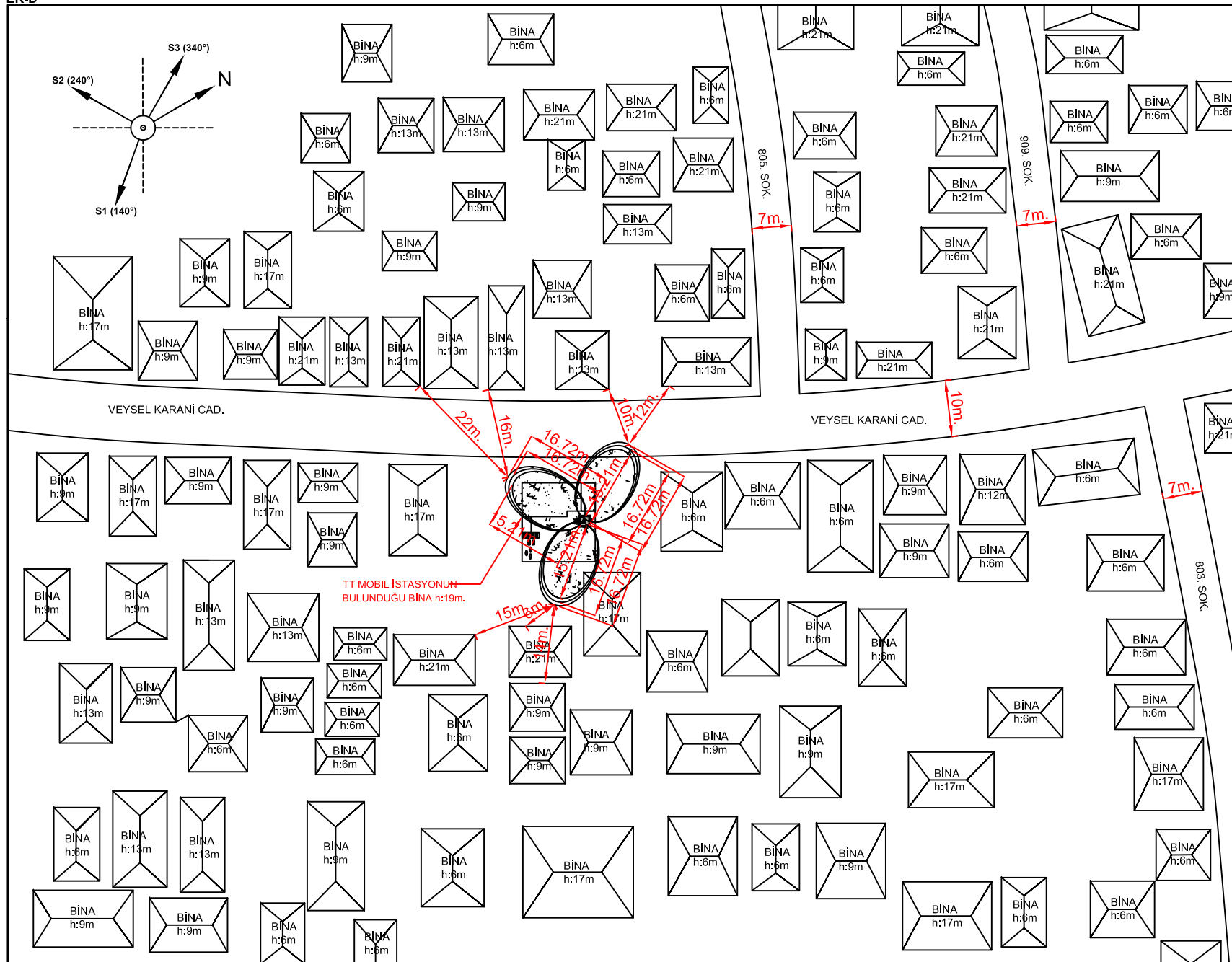
<b>Düzenleyen – Prepared</b> NOKIA	<b>Sorumlu - Subject responsible</b> TT MOBİL İLETİŞİM HİZMETLERİ A.Ş.	<b>İstasyon İsmi - Site Name</b> VEYSEL KARANİ CAD.
<b>Onaylayan - Doc.Respons/Approved</b>	<b>Tarih – Date</b> 18.01.2021	<b>Dosya - Reference File</b> LBT0806



## İSTASYON YOL TARİFİ

KİSMET MAH. 17.SOK. NO:48 VEYSEL KARANİ CAD. MERKEZ / BATMAN

Approved	Signature	Date
		18.01.2021



## GENERAL NOTES

- RF (FEEDER) CABLE
- RF (FEEDER) KABLOSU
- MICRO WAVE RADIO CABLE
- MICRO WAVE RADIO KABLOSU
- - - AC CABLE
- - - AC KABLOSU
- - - AC GROUNDING CABLE
- - - AC TOPRAKLAMA KABLOSU
- GROUNDING CABLE
- TOPRAKLAMA KABLOSU
- - - LIGHTNING GROUNDING CABLE
- - - PARATONER TOPRAKLAMA KABLOSU
- ⬇ GROUNDING PIT
- ⬇ TOPRAKLAMA ALANI
- ⬇ ANTILIGHTNING PROTECTION
- ⬇ YILDIRIM KORUMASI

3			
4			
3			
2			
1			
NO	UPDATE BY	DESCRIPTION	DATE

## UPDATES

DESIGN COMPANY	
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PROJECT NAME:  
TURKEY GSM PROJECT

## DRAWING STATUS

for APPROVE	for CONSTR.	AS BUILT
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SITE CODE:

LBT0806

SITE NAME:

VEYSEL KARANI CAD.

AZIMUTHS:

N: 37° 52' 49,36" E: 41° 07' 03,64"

SITE ADDRESS:

KISMET MAH. 17. SOK. NO:48 VEYSEL KARANI CAD.  
MERKEZ / BATMAN

TSS DONE BY:

SAQ	TT MOBİL
CONSTRUCTION	SERHAT ALTINDAĞ
SUBCONTRACTOR	NOKIA

DRAWING NAME:

PLAN

REVISION	DATE	SCALE
	30.01.2021	1 / 1000

PREPARED BY  
ERS TECNİC

FILE NAME AND PATH :

DRAWING NO : **LBT0806-001**

## RF ANTENNA DETAILS

SECTOR	TYPE	SIZE	T.N. AZ.	M.TILT	E.TILT	FEEDER TYPE	FEEDER LENGTH	ROOFTOP	BOTTOM HEIGHT
1	AS4518R53	150 cm.	140°	2°	8°-4'-0"	F/O"	10 m.	19 m.+6m.	+25.00 m.
2	AS4518R53	150 cm.	240°	2°	8°-4'-0"	F/O"	10 m.	19 m.+6m.	+25.00 m.
3	AS4518R53	150 cm.	340°	2°	8°-4'-0"	F/O"	10 m.	19 m.+6m.	+25.00 m.

## MW ANTENNA DETAILS

DEPT.	RECEIVED DATE&HR	NAME	SIGNATURE	TRANSMITTED DATE&HR
MW				
RF				
AQ				

4,5G-CELL.2 (240°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

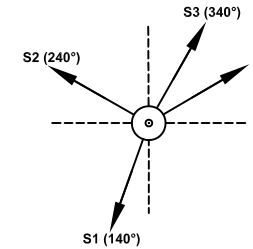
4,5G-CELL.3 (340°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

TERASA ÇIKIŞ MERDİVENİ

BACA

ÇANAKLAR

4,5G-CELL.1 (140°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

MEVCUT TT MOBİL POLE  
h:6m.MEVCUT TT MOBİL  
SEPERASYON

## GENERAL NOTES

- RF (FEEDER) CABLE  
RF (FEEDER) KABLOSU
- MICRO WAVE RADIO CABLE  
MICRO WAVE RADIO KABLOSU
- AC CABLE  
AC KABLOSU
- AC GROUNDING CABLE  
AC TOPRAKLAMA KABLOSU
- GROUNDING CABLE  
TOPRAKLAMA KABLOSU
- LIGHTNING GROUNDING CABLE  
PARATONER TOPRAKLAMA KABLOSU
- GROUNDING PIT  
TOPRAKLAMA ALANI
- ANTI LIGHTNING PROTECTION  
YILDIRM KORUMASI

5			
4			
3			
2			
1			
NO	UPDATE BY	DESCRIPTION	DATE

## UPDATES

DESIGN COMPANY	
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PROJECT NAME:  
TURKEY GSM PROJECT

## DRAWING STATUS

for APPROVE ⊗	for CONSTR. ⊗	AS BUILT ○
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SITE CODE:

LBT0806

SITE NAME:

VEYSEL KARANI CAD.

AZIMUTHS:

N: 37° 52' 49,36" E: 41° 07' 03,64"

SITE ADDRESS:

KISMET MAH. 17. SOK. NO:48 VEYSEL KARANI CAD.  
MERKEZ / BATMAN

TSS DONE BY:

SAQ	TT MOBİL
CONSTRUCTION	SERHAT ALTINDAĞ
SUBCONTRACTOR	NOKIA

DRAWING NAME:

PLAN\_DETAIL

REVISION	DATE	SCALE
	30.01.2021	1 / 250

PREPARED BY  
ERS TECNİC

FILE NAME AND PATH:

DRAWING NO : **LBT0806-002**

## RF ANTENNA DETAILS

SECTOR	TYPE	SIZE	T.N. AZ.	M.TILT	E.TILT	FEEDER TYPE	FEEDER LENGTH	ROOFTOP	BOTTOM HEIGHT
1	ASI4518R53	150 cm.	140°	2°	8°-4°-0°	F/O"	10 m.	19 m.+6m.	+25.00 m.
2	ASI4518R53	150 cm.	240°	2°	8°-4°-0°	F/O"	10 m.	19 m.+6m.	+25.00 m.
3	ASI4518R53	150 cm.	340°	2°	8°-4°-0°	F/O"	10 m.	19 m.+6m.	+25.00 m.

## MW ANTENNA DETAILS

MW	SIZE	AZ.	TOWER	CENTER HEIGHT

DEPT.	RECEIVED DATE&HR	NAME	SIGNATURE	TRANSMITTED DATE&HOUR
CW				
MW				
AQ				



YAKALAMA ÇUBUĞU

4,5G-CELL.1 (140°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

TTMOBİL POLE  
h:4m.

4,5G-CELL.2 (240°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

4,5G-CELL.3 (340°)  
ANTEN TIPI : ASI4518R53  
YUKSEKLİK: 25,00 m.  
ANTEN KAZANCI:14,5-17,2-18,1dBi  
MECH TILT: 2°- ELECT TILT: 8°-4°-0°  
GUVENLIK MESAFESI:16,72m-15,21m.-16,00m.

TTMOBİL SEPERASYON

TERAS KAT

BİNA h:19m.

+/-25.00 m

+/-19.00 m

+/-16.00 m

+/-00.00 m

## GENERAL NOTES

- RF (FEEDER) CABLE  
RF (FEEDER) KABLOSU
- MICRO WAVE RADIO CABLE  
MICRO WAVE RADIO KABLOSU
- AC CABLE  
AC KABLOSU
- AC GROUNDING CABLE  
AC TOPRAKLAMA KABLOSU
- GROUNDING CABLE  
TOPRAKLAMA KABLOSU
- LIGHTNING GROUNDING CABLE  
PARATONER TOPRAKLAMA KABLOSU
- GROUNDING PIT  
TOPRAKLAMA ALANI
- ANTILIGHTNING PROTECTION  
YILDIRM KORUMASI

5			
4			
3			
2			
1			
NO	UPDATE BY	DESCRIPTION	DATE

## UPDATES

DESIGN COMPANY	
-------------------	--

PROJECT NAME:  
TURKEY GSM PROJECT

## DRAWING STATUS

for APPROVE ⊗	for CONSTR. ⊗	AS BUILT ○
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SITE CODE:

LBT0806

SITE NAME:

VEYSEL KARANİ CAD.

AZIMUTHS:

N: 37° 52' 49,36" E: 41° 07' 03,64"

SITE ADDRESS:

KISMET MAH. 17. SOK. NO:48 VEYSEL KARANİ CAD.  
MERKEZ / BATMAN

TSS DONE BY:

SAQ	TT MOBİL
CONSTRUCTION	SERHAT ALTINDAĞ
SUBCONTRACTOR	NOKIA

DRAWING NAME:

FRONT\_VIEW

REVISION	DATE	SCALE
	30.01.2021	1 / 250

PREPARED BY  
ERS TECNİC

FILE NAME AND PATH:

DRAWING NO : **LBT0806-003**

## RF ANTENNA DETAILS

SECTOR	TYPE	SIZE	T.N. AZ.	M.TILT	E.TILT	FEEDER TYPE	FEEDER LENGTH	ROOFTOP	BOTTOM HEIGHT
1	ASI4518R53	150 cm.	140°	2°	8°-4°-0°	F/O"	10 m.	19 m.+6m.	+25.00 m.
2	ASI4518R53	150 cm.	240°	2°	8°-4°-0°	F/O"	10 m.	19 m.+6m.	+25.00 m.
3	ASI4518R53	150 cm.	340°	2°	8°-4°-0°	F/O"	10 m.	19 m.+6m.	+25.00 m.

## MW ANTENNA DETAILS

DEPT.	RECEIVED DATE&HR	NAME	SIGNATURE	TRANSMITED DATE&HOUR
MW				
RF				
AQ				

# ASI4518R53v07

DXXXXXX-690-960/690-960/1695-2690/1695-2690/1695-2690/1695-2690-  
65/65/65/65/65/65-14.5i/14.5i/17.5i/17.5i/17.5i/17.5i-M/M/M/M/M/M-R  
EasyRET 2L4H 12-Port Antenna with 6 Integrated RCUs -1.5m



## Antenna Specifications

Electrical Properties									
Frequency range (MHz)		2 x (690 - 960)				2 x (1695 - 2690) (CLy2/CRy3)			
		690 - 803	790 - 862	824 - 894	880 - 960	1695 - 1990	1920 - 2200	2200 - 2490	2490 - 2690
Polarization		+45°, -45°							
Electrical downtilt (°)		2 - 16 , continuously adjustable, each band separately				2 - 12 , continuously adjustable, each band separately			
Gain (dBi)	at mid Tilt	14.2	14.5	14.8	15.1	17.2	17.6	18.0	18.1
	over all Tilts	14.1 ±0.5	14.4 ±0.5	14.7 ±0.5	15.0 ±0.5	17.1 ±0.5	17.5 ±0.5	17.9 ±0.5	18.0 ±0.5
Side lobe suppression for first side lobe above main beam (dB)		> 15	> 16	> 16	> 16	> 15	> 16	> 16	> 16
Horizontal 3dB beam width (°)		69 ±6	67 ±6	66 ±6	65 ±6	68 ±8	65 ±6	60 ±6	58 ±6
Vertical 3dB beam width (°)		15.1 ±1.5	13.8 ±0.9	13.3 ±0.9	12.4 ±0.8	6.9 ±0.5	6.2 ±0.6	5.5 ±0.3	4.9 ±0.4
VSWR		< 1.5				< 1.5			
Cross polar isolation (dB)		≥ 28				≥ 28			
Interband isolation (dB)		≥ 26				≥ 26			
Front to back ratio , ±30° (dB)		> 20	> 21	> 22	> 22	> 24	> 26	> 25	> 26
Cross polar ratio (dB)	0°	> 18	> 18	> 18	> 18	> 17	> 17	> 17	> 18
Max. power per input (W)		400 (at 50°C ambient temperature)*				250 (at 50°C ambient temperature)*			
Intermodulation IM3 (dBc)		≤ -153 (2 x 43 dBm carrier)				≤ -153 (2 x 43 dBm carrier)			
Impedance (Ω)		50				50			
Grounding		DC Ground				DC Ground			

Electrical Properties					
Frequency range (MHz)		2 x (1695 - 2690) (Ly1/Ry4)			
		1695 - 1990	1920 - 2200	2200 - 2490	2490 - 2690
Polarization		+45° , -45°			
Electrical downtilt (°)		2 - 12 , continuously adjustable, each band separately			
Gain (dBi)	at mid Tilt	17.2	17.6	18.0	18.1
	over all Tilts	17.1 ±0.5	17.5 ±0.5	17.9 ±0.5	18.0 ±0.5
Side lobe suppression for first side lobe above main beam (dB)		> 16	> 16	> 16	> 16
Horizontal 3dB beam width (°)		69 ±6	68 ±6	66 ±6	59 ±7
Vertical 3dB beam width (°)		7.1 ±0.5	6.3 ±0.5	5.6 ±0.3	5.1 ±0.4
VSWR		< 1.5			
Cross polar isolation (dB)		≥ 28			
Interband isolation (dB)		≥ 26			
Front to back ratio , ±30° (dB)		> 26	> 25	> 24	> 24
Cross polar ratio (dB)	0°	> 18	> 18	> 18	> 16
Max. power per input (W)		250 (at 50°C ambient temperature)*			
Intermodulation IM3 (dBc)		≤ -153 (2 x 43 dBm carrier)			
Impedance (Ω)		50			
Grounding		DC Ground			

\* Total power : 700 W (at 50°C ambient temperature)

1. Values based on NGMN recommendations on Base Station Antenna Standards (BASTA).
2. Electrical datasheet in XML format is available.

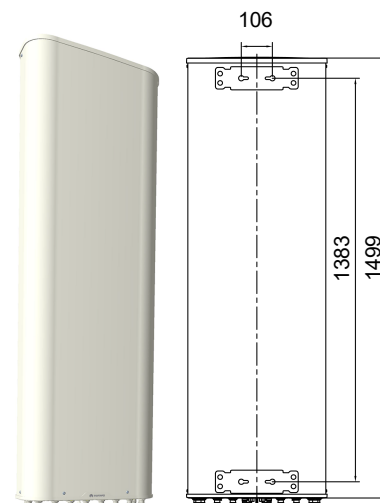
# ASI4518R53v07

DXXXXXX-690-960/690-960/1695-2690/1695-2690/1695-2690/1695-2690-  
65/65/65/65/65/65-14.5i/14.5i/17.5i/17.5i/17.5i/17.5i-M/M/M/M/M/M-R  
EasyRET 2L4H 12-Port Antenna with 6 Integrated RCUs -1.5m



## Mechanical Properties

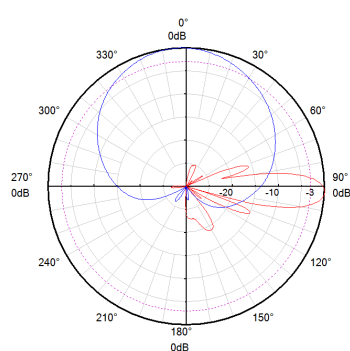
Antenna dimensions (H x W x D) (mm)	1499 x 469 x 206
Packing dimensions (H x W x D) (mm)	1760 x 540 x 250
Antenna weight (kg)	29.5
Clamps weight (kg)	3.6 (2 units)
Antenna packing weight (kg)	39.0 (Included clamps)
Mast diameter supported (mm)	50 - 115
Radome material	Fiberglass
Radome colour	Light grey
Operational temperature (°C)	-40 .. +65
Wind load (N)	Frontal: 440 (at 150 km/h) Lateral: 265 (at 150 km/h) Maximum: 585 (at 150 km/h)
Max. operational wind speed (km/h)	200
Survival wind speed (km/h)	250
Connector	12 x 4.3-10 Female
Connector position	Bottom



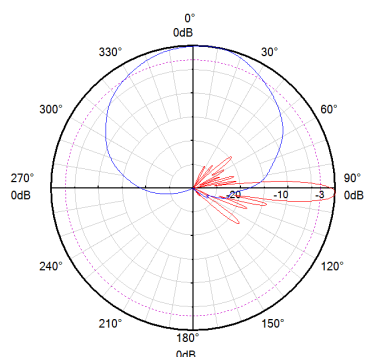
## Accessories

Item	Model	Description	Weight	Units per antenna
Downtilt kit	ASMDT0D01	Mechanical downtilt: 0 - 16 °	2.1 kg	1 (Separate packing)

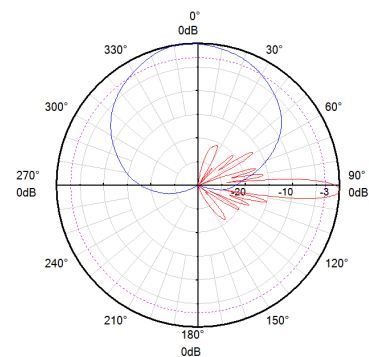
## Pattern sample for reference



690 - 960 MHz



1695 - 2690 MHz  
(Ly1/Ry4)



1695 - 2690 MHz  
(CLy2/CRy3)



# ASI4518R53v07

DXXXXXX-690-960/690-960/1695-2690/1695-2690/1695-2690/1695-2690-  
65/65/65/65/65/65-14.5i/14.5i/17.5i/17.5i/17.5i/17.5i-M/M/M/M/M/M-R  
EasyRET 2L4H 12-Port Antenna with 6 Integrated RCUs -1.5m



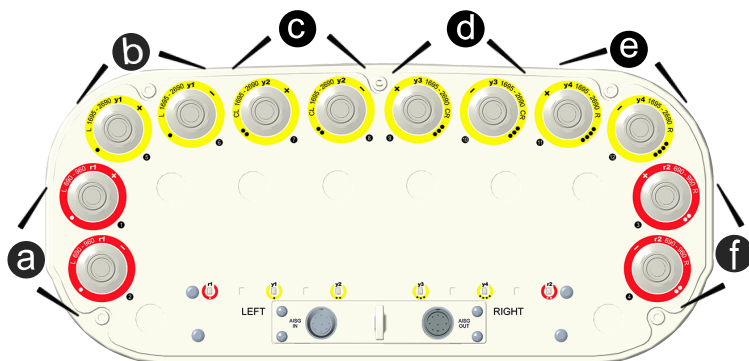
## Integrated RET Specifications

Properties								
RET type	Integrated RET							
RET protocols*	AISG 2.0 / 3GPP							
Input voltage range (V)	10 - 30 DC							
Power consumption (W)	< 0.5 (when the motor does not work, 12 V) < 4.5 (when the motor is working, 12 V) < 10 (when the motor is starting up or shutting down, 12 V)							
Adjustment time (full range) (s)	Typ. 40 (typically, depending on antenna type)							
RET connector	2 x 8 pin connector according to IEC 60130-9 Daisy chain in: Male / Daisy chain out: Female							
Pin assignment according AISG	1	2	3	4	5	6	7	8
	DC	n/c	RS-485B	n/c	RS-485A	DC	DC return	n/c
Lightning protection (kA)	2.5 (10/350 $\mu$ s) 10 (8/20 $\mu$ s)							

\* Please confirm the AISG protocol of primary station is compatible with RET antenna protocol interface. The protocol of RET antenna software interface is switchable between AISG 2.0/3GPP and AISG 1.1 with a vendor defined command. For more details about protocol switching function, contact Huawei before system installation.

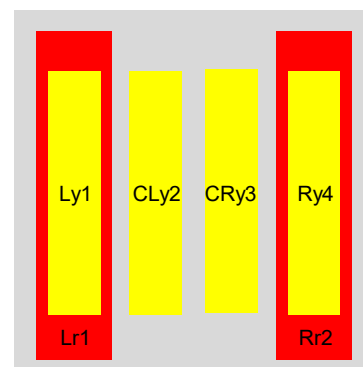
**Standards:** EN/IEC 60950-1(Safety), EN/IEC 60950-22(Safety – Equipment installed outdoor), EN 55032 (Emission), EN 55024 (Immunity), ETSI EN 301 489, FCC Part15, ICES-003

**Certification:** CE, FCC, IC, RCM, RoHS, REACH, WEEE



### Integrated RET S/N:

- a HWNxxx.....Lr1
- b HWNxxx.....Ly1
- c HWNxxx.....CLy2
- d HWNxxx.....CRy3
- e HWNxxx.....Ry4
- f HWNxxx.....Rr2



r - Red      y - Yellow  
L - Left array    R - Right array    C - Center array

### NOTE

- Facilities, such as towers and poles, must bear the weight and wind load of antennas.
- HUAWEI's standard brackets and accessories must be used for any installation.
- The antenna working environment must meet the requirements specified in the datasheet.
- Only qualified personnel are allowed to perform installation. Installation tools and procedures must conform to requirements described in the antenna installation guide.