

Corrigendum – 4

Sub Solution for DWDM channel capacity augmentation as per the proposed traffic matrix, existing DWDM network configuration and fibre characteristics for the OFC based communication network of RailTel

Ref : Tender No. RCIL_ER_2021-22_1299- 1303 Dt. 19.06.2021

In reference to the subject tender, the following Corrigendum-1 is issued herewith:

Clause No.	Existing Entry	Corrected and read as
3.1.1	The envisaged network under present scope is to be managed from Secunderabad NOC as main site. The DR site will be decided by RailTel which will be either Chennai or Mumbai or Kolkata with clients at each of these NOCs and at CNOC. For this purpose:	The envisaged network under present scope is to be managed from the following RailTel NOCs : Section -1 : : from Kolkata, Section-2 : from Secunderabad/Mumbai, Section-3 : from Kolkata/Delhi Section-4 & Section -5 : from Delhi.
4A.2.5.1	In addition two NMS trained engineer (one for each SOR package) shall be provided at the NOC location in each Region, as part of maintenance supervision obligation. The NOC engineer will ensure that the down time shall not be more than 4 hours for equipment failure. Additional manpower if considered necessary shall be provided by contractor to stabilize the network. A penalty of Rs. 1000/- per hour of down time of network shall be imposed on the contractor for not meeting the down time prescribed. The Contractor's Engineer shall be responsible to identify the fault and advise corrective measures and ensure that defective cards are replenished.	The NOC engineer will ensure that the down time shall not be more than 4 hours for equipment failure. Additional manpower if considered necessary shall be provided by contractor to stabilize the network. A penalty of Rs. 1,000/- per hour of down time of network shall be imposed on the contractor for not meeting the down time prescribed. The Contractor's Engineer shall be responsible to identify the fault and advise corrective measures and ensure that defective cards are replenished.



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4.A.3.1	Bidder/OEM shall provide maintenance support after successful completion of the warranty obligations for a minimum period of 5 years. The long term maintenance support shall be comprehensive and include all hardware and software of equipment, NMS etc. supplied against this contract. RailTel should be extended the benefits of software update/up-grades made by OEM on the system from time to time to improve performance. During this period the scope of work as mentioned in clause 4.A.2 above & its sub clauses except clause 4.A.2.5 above, will be applicable. This includes the provision of two qualified Engineer (one for each SOR package) for level 2 support at NOC location in each Region (8 in total).	Bidder/OEM shall provide maintenance support after successful completion of the warranty obligations for a minimum period of 5 years. The long term maintenance support shall be comprehensive and include all hardware and software of equipment, NMS etc. supplied against this contract. RailTel should be extended the benefits of software update/up-grades made by OEM on the system from time to time to improve performance. During this period the scope of work as mentioned in clause 4.A.2 above & its sub clauses except clause 4.A.2.5 above, will be applicable.
4.A.3.4	As part of level-2 support, two experienced engineer (one for each SOR package) should be available at the NOC location in each Region during general shift (to be available beyond shift hours, when needed, for meeting SLAs) and should work for RailTel's exclusive requirement	As part of level-2 support, two experienced engineer, as per SOR requirement, should be available at the NOC during general shift (to be available beyond shift hours, when needed, for meeting SLAs) and should work for RailTel's exclusive requirement
3E.8.1	8% mandatory spares (for operation and maintenance) shall be provided for all electronic cards including mother boards, back plane for each system, subsystem, equipment, etc. (with round off at the higher side with two cards minimum), as against SOR item no. A2. Spares shall be provided from the same manufacturing facilities/location from where the respective equipment, subsystems are offered.	8% mandatory spares (for operation and maintenance) shall be provided for all electronic cards including mother boards, back plane for each system, subsystem, equipment, etc. (with round off at the higher side), as against SOR item no. A2. Spares shall be provided from the same manufacturing facilities/location from where the respective equipment, subsystems are offered.
4A.2.4.1	To enforce fulfillment of support objectives, bidder shall make available services of two qualified engineer at NOC location in each Region (8 in total) to the satisfaction of RailTel for level 2 support during the warranty period. The cost for Technical Engineering support etc., may be quoted as provided for in SOR. The Contractor's Engineer shall be responsible to identify the fault and advise corrective measures and ensure that defective cards are replenished. The cost of cards repairs etc. shall be included in the quoted bid price towards warranty.	To enforce fulfillment of support objectives, bidder shall make available services of two qualified engineer at NOC location, as per SOR, to the satisfaction of RailTel for level 2 support during the warranty period. The cost for Technical Engineering support etc., may be quoted as provided for in SOR. The Contractor's Engineer shall be responsible to identify the fault and advise corrective measures and ensure that defective cards are replenished. The cost of cards repairs etc. shall be included in the quoted bid price towards warranty.

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1.3.3.4 b)	Delhi to Chandigarh (DCM): OADM sites equipped with 80 Channel Mux/Demux (minimum) with 100 GHz channel spacing	Delhi to Chandigarh (DCM): OADM sites equipped with 80 Channel Mux/Demux (minimum) with 50 GHz channel spacing.
1.3.3.3 b)	Delhi to Kolkata (DCM) OADM sites equipped with 80 Channel Mux/Demux (minimum) with 100 GHz channel spacing.	Delhi to Kolkata (DCM) OADM sites equipped with 80 Channel Mux/Demux (minimum) with 50 GHz channel spacing.
1.3.9 (1)	Reach (km) on 10G DWDM Network (with DCM) 500* Km with following parameters 1. Fiber loss per section: 24-28db	Reach (km) on 10G DWDM Network (with DCM) 500* Km with following parameters 1. Fiber loss per section: 26 db
1.3.9 (2)	Reach (km) with 100G DWDM Network (without DCM) 800* Km with following parameters 1. Fiber loss per section: 24-28db	Reach (km) with 100G DWDM Network (without DCM) 800* Km with following parameters 1. Fiber loss per section: 26 db
1.4.20	New Clause added	The proposed DWDM Muxponder shall support transmission of single carrier channel with Software Configurable 100G & 200G line rate and Line Port shall be tunable to 100G and 200G through software only without any extra cost to RCIL, however the client sides ports should be provided as per Traffic matrix. In case any license required for the client ports shall be included in the offer.
	New annexure added	Annexure-V for DCM Details
The last Date of submission of Bid extended from 26.08.2021 to 31.08.2021 up to 14:00 Hrs.		
Tender will be opened on 31.08.2021 at 14:30 Hrs.		



James
16/08/2021

(P D James)

Asstt.GM/Contracts

for RailTel Corporation of India Ltd./ Eastern Region

Annexure- V

Delhi to Kolkata via Lucknow ,MGS, Gaya ,ASN,KGP path

S.No	Node A -DCM Module	Node-A	Node-Z
1	D0510DCF-2	Delhi-1 (ROADM)	Ghaziabaad-1
	D0170DCF-2	Ghaziabaad-1 (ROADM)	Delhi-1
2	D0510DCF-2	Ghaziabaad-1 (ROADM)	Hapur-1
	D1190DCF-2	Hapur-1 (ILA)	Ghaziabaad-1
3	D0850DCF-2	Hapur-1 (ILA)	Gajrola-1
	D0850DCF-2	Gajrola-1 (ILA)	Hapur-1
4	D0850DCF-2	Gajrola-1 (ILA)	Moradabaad-1
	D0340DCF-2	Moradabaad-1	Gajrola-1
5	D0850DCF-2	Moradabaad-1	Rampur-1
	D0340DCF-2	Rampur-1 (ILA)	Moradabaad-1
6	D1190DCF-2	Rampur-1 (ILA)	Bareilly-1
	D1190DCF-2	Bareilly-1 (ILA)	Rampur-1
7	D1020DCF-2	Bareilly-1 (ILA)	Shajahanpur-1
	D1020DCF-2	Shajahanpur-1 (ILA)	Bareilly-1
8	D0510DCF-2	Shajahanpur-1 (ILA)	Hardoi-1
	D0850DCF-2	Hardoi-1 (ILA)	Shajahanpur-1
9	D0510DCF-2	Hardoi-1 (ILA)	Balamau-1
	D0510DCF-2	Balamau-1 (ILA)	Hardoi-1
10	D1020DCF-2	Balamau-1 (ILA)	Lucknow-1
	D0680DCF-2+ D0850DCF-2	Lucknow-1 (ROADM)	Balamau-1
11	2*D0340DCF-2	Lucknow-1 (ROADM)	Haidergargh-1
	D0850DCF-2	Haidergargh-1 (ILA)	Lucknow-1
12	D0850DCF-2	Haidergargh-1 (ILA)	Nihalgargh-1
	D0850DCF-2	Nihalgargh-1 (ILA)	Haidergargh-1
13	D0850DCF-2	Nihalgargh-1 (ILA)	Sultanpur-1
	D0680DCF-2	Sultanpur-1 (ILA)	Nihalgargh-1
14	D0850DCF-2	Sultanpur-1 (ILA)	Srikrishnanagar-1
	D0850DCF-2	Srikrishnanagar-1 (ILA)	Sultanpur-1
15	D0510DCF-2	Srikrishnanagar-1 (ILA)	Jaunpur-1
	D0680DCF-2	Jaunpur-1 (ILA)	Srikrishnanagar-1
16	D0850DCF-2	Jaunpur-1 (ILA)	Varanasi-1
	D0340DCF-2+D1020DCF-2	Varanasi-1 (ILA)	Jaunpur-1
17	D0680DCF-2	Varanasi-1 (ILA)	Mugalsarai-1
	D0170DCF-2	Mugalsarai-1 (ROADM)	Varanasi-1

MGS to Kolkata via Gaya,ASN,KGP

SN	Section		Start Node A -DCM	End Node B- DCM
	Start Node A	End Node B		
1	Mughalsarai-1 (ROADM)	BabuaRoad-1	D0850DCF-2	D1360DCF-2
2	BabuaRoad-1 (ILA)	Sasaram-1	D0850DCF-2	D1020DCF-2
3	Sasaram-1 (ILA)	Rafiganj-1	D0850DCF-2	D1020DCF-2
4	Rafiganj-1 (ILA)	Gaya-1(ROADM)	D1020DCF-2	D0340DCF-2
5	Gaya-1 (ROADM)	Paharpur-1	D0680DCF-2	D1020DCF-2
6	Paharpur-1 (ILA)	Koderma-1	D0680DCF-2	D0850DCF-2
7	Koderma-1 (ILA)	Parasnath-1	D0850DCF-2	D0850DCF-2
8	Parasnath-1 (ILA)	Dhanbad-1(ROADM)	D0680DCF-2	D1360DCF-2 + D1020DCF-2
9	Dhanbad-1 (ROADM)	Asansol-1(ROADM)	Nil	D0510DCF-2+D0680DCF-2
10	Kharagpur(ROADM)	Bishnupur	D0510DCF-2+ D01190DCF-2	D1530DCF-2
11	Bishnupur(ILA)	Adra	D1530DCF-2	D1360DCF-2
12	Adra(ILA)	Asansol(ROADM)	D1190DCF-2	D0510DCF-2
13	Kolkata(ROADM)	Bagnan	D0340DCF-2	D1020DCF-2
14	Bagnan(ILA)	Panskura	D0510DCF-2	D0340DCF-2
15	Panskura(ILA)	Kharagpur(ROADM)	D01020DCF-2	D0680DCF-2



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Delhi to Kolkata via Kanpur, MGS, Patna, ASN, DGR, Khana			
S.No	Node -A DCM	Node-A	Node-Z
1	NIL	Delhi-1D-02 (ROADM)	NICShastriPark-1D-01
	NIL	NICShastriPark-1D-01 (ROADM)	Delhi-1D-02
2	NIL	Delhi-1(DMRC)D-03 (ROADM)	NICShastriPark-1(DMRC)D-02
	NIL	NICShastriPark-1(DMRC)D-02 (ROADM)	Delhi-1(DMRC)D-03
3	D0340DCF-2	NICShastriPark-1 (ROADM)	Ghaziabaad-1
	NIL	Ghaziabaad-1 (ROADM)	NICShastriPark-1
4	D0680DCF-2+D0510DCF-2	Ghaziabaad-1	Khurja-1
5	D0680DCF-2	Khurja-1 (ILA)	Ghaziabaad-1
	D1020DCF-2	Khurja-1	Aligarh-1
6	D0510DCF-2	Aligarh-1 (ILA)	Khurja-1
	D0680DCF-2	Aligarh-1	Pora-1
7	D0680DCF-2	Pora-1 (ILA)	Aligarh-1
	D0680DCF-2	Pora-1	Tundla2-1
8	D0680DCF-2	Tundla2-1 (ROADM)	Pora-1
	D0680DCF-2	Tundla2-1	Sikohabaad-1
9	D0850DCF-2	Sikohabaad-1 (ILA)	Tundla2-1
	D0510DCF-2	Sikohabaad-1	Etawa-1
10	D1190DCF-2	Etawa-1 (ILA)	Sikohabaad-1
	D0850DCF-2	Etawa-1	Phaphund-1
11	D0850DCF-2	Phaphund-1 (ILA)	Etawa-1
	D0510DCF-2	Phaphund-1	Rura-1
12	D0680DCF-2	Rura-1 (ILA)	Phaphund-1
	D1360DCF-2	Rura-1	Kanpur-1
13	D0170DCF-2	Kanpur-1 (ROADM)	Rura-1
	D1020DCF-2	Kanpur-1	Anug-1
14	D0340DCF-2	Anug-1 (ILA)	Kanpur-1
	NIL	Anug-1	Fatehpur-1
15	D1190DCF-2	Fatehpur-1 (ILA)	Anug-1
	D1190DCF-2	Fatehpur-1	Katoghan-1
16	D0170DCF-2	Katoghan-1 (ILA)	Fatehpur-1
	NIL	Katoghan-1	Bharwari-1
17	D1020DCF-2	Bharwari-1 (ILA)	Katoghan-1
	D1190DCF-2	Bharwari-1	Allahabad-1
18	D0510DCF-2	Allahabad-1	Bharwari-1
	D0340DCF-2	Allahabad-1	Mejaroad
19	D0680DCF-2	Mejaroad (ILA)	Allahabad-1
	D1020DCF-2	Mejaroad	Vindhiyachal
20	D1020DCF-2	Vindhiyachal (ILA)	Mejaroad
	D0170DCF-2	Vindhiyachal	Chunar-1
21	D0340DCF-2	Chunar-1 (ILA)	Vindhiyachal
	D0170DCF-2	Chunar-1	Mugalsarai-1
	D1530DCF-2	Mugalsarai-1	Chunar-1

MGS to Kolkata via patna, ASN, DGR, Khana

Patna-Mughalsarai

SL No	Section		Start Node A -DCM	End Node B- DCM
	Start Node A	End Node B		
1	Patna-1 (ROADM)	Ara-1 (ILA)	D0510DCF-2 +	D0850DCF-2
2	Ara-1 (ILA)	Buxar-1 (ILA)	D1190DCF-2	D1190DCF-2
3	Buxar-1 (ILA)	Zamania-1 (ILA)	D0850DCF-2	D0680DCF-2
4	Zamania-1 (ILA)	Mughalsarai-	D1190DCF-2	D0510DCF-2
Asansol-Patna				
5	Asansol-1 (ROADM)	Madhupur-1 (ILA)	D0510DCF-2 +	D1190DCF-2
6	Madhupur-1 (ILA)	Jasidih-1 (ILA)	D0510DCF-2	D0340DCF-2
7	Jasidih-1 (ILA)	Jhajha-1 (ILA)	D0850DCF-2	D0850DCF-2
8	Jhajha-1 (ILA)	Kuil-1 (ILA)	D0850DCF-2	D0850DCF-2
9	Kuil-1 (ILA)	Mokama-1 (ILA)	D0510DCF-2	D0850DCF-2
10	Mokama-1 (ILA)	Bakthiyarpur-1 (ILA)	D0850DCF-2	D0850DCF-2
11	Bakthiyarpur-1 (ILA)	Patna-1 (ROADM)	D0680DCF-2	D0510DCF-2 + D0340DCF-2
Asansol-Durgapur-Kolkata				
12	Durgapur-1 (ROADM)	Asansol-1 (ROADM)	D0850DCF-2	D1020DCF-2
13	Khana-1 (ROADM)	Durgapur-	D0850DCF-2	D1020DCF-2
14	Khana-1 (ROADM)	Jaugram-1 (ILA)	D0510DCF-2	D1020DCF-2
15	Jaugram-1 (ILA)	Kolkata-1 (ROADM)	D1190DCF-2	D0340DCF-2 + D1020DCF-2



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Durgapur to Omapur via Bolpur TTSL path

SL No.	Section		Start Node A -DCM	End Node B- DCM
	Start Node A	End Node B		
1	Durgapur-1	Bolpur-1	D1020DCF-2	D1700DCF-2
2	Bolpur-1	Suri-1	D0680DCF-2	D0510DCF-2
3	Suri-1	Rampurhat-1	D1020DCF-2	D1020DCF-2
4	Rampurhat-1	Omapur-1	D1020DCF-2	D1020DCF-2
DCM of Coriant DWDM		DCM Card Name	Distance	
		D0170DCF-2	10KM	
		D0340DCF-2	20KM	
		D0510DCF-2	30KM	
		D0680DCF-2	40KM	
		D0850DCF-2	50KM	
		D1020DCF-2	60KM	
		D1190DCF-2	70KM	
		D1360DCF-2	80KM	
		D1530DCF-2	90KM	
		D1700DCF-2	100KM	

ADVA DWDM Kolkata - Vizyanagram and Kolkata - Nagpur

SN	SECTION	NODE NAME	NODE TYPE	SLOT	DCG-M /DCF-M	QTY
1	KOL- KGP	KOL	OADM	1-14	DCG-M/100/SSMF	1
		BAGNAN	ILA	N/A	N/A	
		PANSKURA	ILA	N/A	N/A	
		KGP	OADM	2-11	DCG-M/100/SSMF	1
2	KGP - BALASORE	KGP	OADM	2-7	DCG-M/100/SSMF	1
		JALESWAR	ILA	1-16	DCG-M/100/SSMF	1
		BALASORE	OADM	N/A	N/A	
3	BALASORE - CUTTACK	BALASORE	OADM	N/A	N/A	
		BHADRAK	ILA	1-16	DCG-M/100/SSMF	1
		JAJPUR	ILA	N/A	N/A	
		CUTTACK	OADM	N/A	N/A	
4	CUTTACK - BBS	CUTTACK	OADM	1-10	DCG-M/100/SSMF	1
		BBS	OADM	1-18	DCG-M/100/SSMF	1
5	BBS - BEHARAMPUR	BBS	OADM	1-7	DCG-M/100/SSMF	1
		KHURDA RD	ILA	1-7	DCF-M/040/SSMF	1
				1-16	DCG-M/100/SSMF	1
		BALUGAON	ILA	1-16	DCG-M/100/SSMF	1
		BEHARAMPUR	OADM	N/A	N/A	
6	BEHARAMPUR - VZM	BEHARAMPUR	OADM	1-10	DCG-M/100/SSMF	1
		PALASA	ILA	1-16	DCG-M/100/SSMF	1
		SRIKAKULAM	ILA	1-16	DCG-M/100/SSMF	1
		VZM	OADM	1-7	DCG-M/100/SSMF	1
7	VZM - TITLAGARH	VZM	OADM	1-12	DCG-M/060/SSMF	1
		BOOBILLI	ILA	1-13	DCG-M/100/SSMF	1
				1-6	DCG-M/100/SSMF	1
		RAYAGADA	ILA	1-16	DCG-M/100/SSMF	1
		MUNIGUDA	ILA	N/A	N/A	
		TITLAGARH	OADM	1-11	DCG-M/100/SSMF	1
		TITLAGARH	OADM	2-9	DCG-M/100/SSMF	1
8	TITLAGARH - RAIPUR	NAWAPADA	ILA	1-6	DCG-M/100/SSMF	1
				1-16	DCG-M/100/SSMF	1
		MAHASAMUND		N/A	N/A	
		RAIPUR	OADM	1-15	DCG-M/060/SSMF	1
9	KOL- DGR	KOL	OADM	1-7	DCG-M/100/SSMF	1
		JAUGRAM	ILA	N/A	N/A	
		KHANA	ILA	1-7	DCG-M/100/SSMF	1
				1-18	DCG-M/100/SSMF	1
10	DGR - ASANSOLE	DGR	OADM	N/A	N/A	
		ASAN	OADM	N/A	N/A	
11	ASANSOLE - KGP	ASAN	OADM	N/A	N/A	
		ADRA	ILA	N/A	N/A	
		BISNUPUR	ILA	1-6	DCG-M/100/SSMF	1
				1-16	DCG-M/100/SSMF	1
12	KGP - TATA	KGP	OADM	1-11	DCG-M/100/SSMF	1
		KGP	OADM	1-7	DCG-M/100/SSMF	1
		DBM	ILA	1-6	DCG-M/100/SSMF	1
				1-16	DCG-M/100/SSMF	1
13	TATA - ROUR	TATA	OADM	N/A	N/A	
		TATA	OADM	N/A	N/A	
		CKP	ILA	1-6	DCG-M/100/SSMF	1
				1-16	DCG-M/100/SSMF	1
		MANOHARPUR		N/A	N/A	



		ROUR	OADM	1-12	DCG-M/100/SSMF	1
		ROUR	OADM	1-7	DCG-M/100/SSMF	1
14	ROUR - JSG	SAGRA	ILA	N/A	N/A	
		JSG	OADM	1-13	DCG-M/100/SSMF	1
		JSG	OADM	1-7	DCG-M/100/SSMF	1
15	JSG - BSP	RAIGARH	ILA	1-6	DCG-M/100/SSMF	1
		CHAMPA	ILA	1-16	DCG-M/100/SSMF	1
		BSP	OADM	N/A	N/A	
		BSP	OADM	1-12	DCG-M/100/SSMF	1
16	BSP - RAIPUR	HATHBAND	ILA	1-7	DCG-M/100/SSMF	1
		RAIPUR	OADM	N/A	N/A	
		RAIPUR	OADM	1-18	DCG-M/100/SSMF	1
		CUTTACK	OADM	1-16	DCG-M/100/SSMF	1
		DHENKENAL	ILA	N/A	N/A	
		ANGUL	ILA	1-6	DCF-M/070/SSMF	1
		ANGUL	ILA	1-6	DCF-M/040/SSMF	1
		ANGUL	ILA	1-16	DCF-M/060/SSMF	1
17	CUTTACK - SAMBALPUR	BIOINDA	ILA	1-7	DCF-M/050/SSMF	1
		BIOINDA	ILA	1-17	DCF-M/040/SSMF	1
		RIRAKOL	ILA	1-6	DCF-M/040/SSMF	1
		RIRAKOL	ILA	1-16	DCF-M/030/SSMF	1
		JUJUMURA	ILA	1-6	DCF-M/040/SSMF	1
		JUJUMURA	ILA	1-16	DCF-M/030/SSMF	1
		SAMBALPUR	OADM	1-16	DCF-M/040/SSMF	1
18	SAMBALPUR - JSG	SAMBALPUR	OADM	1-6	DCF-M/050/SSMF	1
		JSG	OADM	N/A	N/A	
		ASAN	OADM	N/A	N/A	
19	ASANSOLE - RNC	ADRA 1	ILA	1-6	DCF-M/070/SSMF	1
		ADRA 1	ILA	1-15	DCF-M/020/SSMF	1
		PURULIA	ILA	1-6	DCG-M/100/SSMF	1
		MURI	ILA	1-6	DCG-M/100/SSMF	1
		RNC	OADM	1-15	DCG-M/100/SSMF	1
		RNC	OADM	1-7	DCG-M/100/SSMF	1
20	RNC - ROUR	GOBINDPUR	ILA	1-5	DCF-M/040/SSMF	1
		GOBINDPUR	ILA	1-15	DCF-M/010/SSMF	1
		BANO	ILA	1-6	DCF-M/030/SSMF	1
		BANO	ILA	1-15	DCF-M/040/SSMF	1
		ORGA	ILA	N/A	N/A	
		ROUR	ILA	5-6	DCG-M/100/SSMF	1
21	RAIPUR - DURG	RAIPUR	OADM	1-12	DCG-M/100/SSMF	1
		DURG	ILA	N/A	N/A	
		DURG	ILA	N/A	N/A	
22	NAGPUR-DURG	NAGPUR-100G	OADM	N/A	N/A	
		NAGPUR-10G	OADM	2-14	DCG-M/100/SSMF	1
		CHACHER	ILA	N/A	N/A	
		TUMSUR	ILA	N/A	N/A	
		GONDIA	ILA	1-9	DCG-M/100/SSMF	1
		GONDIA	OADM	1-16	DCG-M/100/SSMF	1
		SALEKASA	ILA	N/A	N/A	
		RAJNANDGAON	ILA	1-7	DCG-M/100/SSMF	1
		DURG	ILA	N/A	N/A	
23	WARDHA-BALLARSHAH	WARDHA-100G	OADM	N/A	N/A	
		WARDHA-10G	OADM	N/A	N/A	
		WARORA	ILA	N/A	N/A	
		BALLARSHAH	ILA	N/A	N/A	

Sr.No.	Tejas New Delhi -Chandigarh DCM Details	
1	Tejas DWDM site	DCM (km)
2	NIC-CDG-DWDM	40 km
3	SRE DWDM	40 km
4	GZB_ILA	40 km
5	NIC-CDG-DWDM	60 km
6	UMB DWDM	80 km
7	MOZ_ILA	80 km
8	NDLS-DWDM	20 km
9	MUT DWDM	20 km
10	MUT DWDM	20 km
11	UMB DWDM	20 km
12	UMB DWDM	20 km
13	Jalandhar DWDM	20 km
14	GZB_ILA	40 km
15	KKDE_ILA	60 km

