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| **Radiocommunication Study Groups** |  |
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| Source: Document 5D/TEMP/385 | **Document IMT-ADV/16-E** |
| **9 July 2010** |
| **English only** |
| Working Party 5D | |
| Evaluation of IMT-ADVANCED CANDIDATE TECHNOLOGY SUBMISSIONS IN DOCUMENTS IMT-ADV/4 and IMT-ADV/8  by TCOE India | |
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[This document describes the evaluation results and activities identified for IMT-Advanced candidate technology submissions in Documents IMT-ADV/4 and IMT-ADV/8 from TCOE India.

# 1 Background

The period from October 2009 (the 6th meeting of Working Party 5D) to June 2010 (the 8th meeting of Working Party 5D) has been designated for evaluation of the IMT-Advanced candidate technology submissions by Independent Evaluation Groups.

The TCOE India is a registered Independent Evaluation Group. At the 8th meeting of Working Party 5D, a final Evaluation Report on IMT-Advanced candidate technology submissions in Documents IMT-ADV/4 and IMT-ADV/8 was submitted by TCOE India (Doc. 5D/757). Working Party 5D has reviewed the evaluation report, and will consider it further in the IMT-Advanced development process.

# 2 Evaluation summary

## 2.1 Use of information in Report ITU-R M.2135-1

*Working Party 5D has defined evaluation guidelines for IMT-Advanced candidate technology evaluation in the Report ITU-R M.2135. The latest version of this document is Report ITU-R M.2135-1.*

*Independent Evaluation Groups are requested to indicate in their inputs to Working Party 5D that they applied Report ITU-R M.2135-1 in their evaluation.*

Does Independent Evaluation Group confirm use of Report ITU-R M.2135-1 in their work?

🗹 Yes 🞎 No

## 2.2 Provision of compliance templates

## 2.2.1 Candidate technology submission in Document IMT-ADV/4

Provision of compliance template for services (Section 4.2.4.1 of Report ITU-R M.2133)

🗹 Yes 🞎 No

Provision of compliance template for spectrum (Section 4.2.4.2 of Report ITU-R M.2133)

🗹 Yes 🞎 No

Provision of compliance template for technical performance (Section 4.2.4.3 of Report ITU-R M.2133)

🗹 Yes 🞎 No

## 2.2.2 Candidate technology submission in Document IMT-ADV/8 FDD RIT

Provision of compliance template for services (Section 4.2.4.1 of Report ITU-R M.2133)

🗹 Yes 🞎 No

Provision of compliance template for spectrum (Section 4.2.4.2 of Report ITU-R M.2133)

🗹 Yes 🞎 No

Provision of compliance template for technical performance (Section 4.2.4.3 of Report ITU-R M.2133)

🗹 Yes 🞎 No

## 2.2.3 Candidate technology submission in Document IMT-ADV/8 TDD RIT

Provision of compliance template for services (Section 4.2.4.1 of Report ITU-R M.2133)

🗹 Yes 🞎 No

Provision of compliance template for spectrum (Section 4.2.4.2 of Report ITU-R M.2133)

🗹 Yes 🞎 No

Provision of compliance template for technical performance (Section 4.2.4.3 of Report ITU-R M.2133)

🗹 Yes 🞎 No

## 2.3 Summary of conclusions of the Evaluation Report

## 2.3.1 Candidate technology submission in Document IMT-ADV/4

Does the evaluation report indicate that the candidate technology meet minimum service and spectrum requirements?

Service requirements: 🗹 Yes 🞎 No

Spectrum requirements: 🗹 Yes 🞎 No

Which test environments have been considered in the Evaluation Report? What is outcome of the evaluation?

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| --- | --- |
| Test environment | Does the Evaluation Report indicate that the minimum technical performance requirements are met in the test environment? |
| 🞎 Indoor | 🞎 Yes 🞎 No 🞎 Partial evaluation |
| 🗹 Microcellular | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |
| 🗹 Base coverage urban | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |
| 🗹 High speed | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |

## 2.3.2 Candidate technology submission in Document IMT-ADV/8 FDD RIT

Does the Evaluation Report indicate that the candidate technology meet minimum service and spectrum requirements?

Service requirements: 🗹 Yes 🞎 No

Spectrum requirements: 🗹 Yes 🞎 No

Which test environments have been considered in the Evaluation Report? What is outcome of the evaluation?

|  |  |
| --- | --- |
| Test environment | Does the Evaluation Report indicate that the minimum technical performance requirements are met in the test environment? |
| 🞎 Indoor | 🞎 Yes 🞎 No 🞎 Partial evaluation |
| 🗹 Microcellular | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |
| 🗹 Base coverage urban | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |
| 🗹 High speed | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |

## 2.3.3 Candidate technology submission in Document IMT-ADV/8 TDD RIT

Does the Evaluation Report indicate that the candidate technology meet minimum service and spectrum requirements?

Service requirements: 🗹 Yes 🞎 No

Spectrum requirements: 🗹 Yes 🞎 No

Which test environments have been considered in the Evaluation Report? What is outcome of the evaluation?

|  |  |
| --- | --- |
| Test environment | Does the Evaluation Report indicate that the minimum technical performance requirements are met in the test environment? |
| 🞎 Indoor | 🞎 Yes 🞎 No 🞎 Partial evaluation |
| 🗹 Microcellular | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |
| 🗹 Base coverage urban | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the evaluation report. The evaluation shows that the candidate RIT meets all the other requirements. |
| 🗹 High speed | 🞎 Yes 🞎 No 🗹 Partial evaluation Comments: The mobility scenarios mentioned in Report ITU-R M.2134 are not evaluated. The VoIP results are not included in the Evaluation Report. The evaluation shows that the candidate RIT meets all the other requirements. |

## 2.4 Additional evaluation methodologies and assumptions

## 2.4.1 Candidate technology submission in document IMT-ADV/4

Have any additional evaluation methodologies or assumptions that had not been included in the Report ITU-R M.2135-1 been used in evaluation?

🗹 Yes 🞎 No  
Comments: The Open Area Rural Model with fixed terminals as proposed by TCOE India was evaluated. Based on this initial evaluation, it is concluded that the IMT-Advanced candidate technology submission in Document IMT-ADV/4 will be able to provide broadband connectivity by means of a single base station over a large rural area of 20 km radius or more, using fixed terminals with rooftop antennas.

## 2.4.2 Candidate technology submission in document IMT-ADV/8

Have any additional evaluation methodologies or assumptions that had not been included in the Report ITU-R M.2135-1 been used in evaluation?

🗹 Yes 🞎 No  
Comments: The Open Area Rural Model with fixed terminals as proposed by TCOE India was evaluated. Based on this initial evaluation, it is concluded that the IMT-Advanced candidate technology submission in document IMT-ADV/8 (both FDD and TDD RITs) will be able to provide broadband connectivity by means of a single base station over a large rural area of 20 km radius or more, using fixed terminals with rooftop antennas.

# 3 Evaluation Report



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