Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Capability encoding for Successive Interference Receiver (SIC)**
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Re:	IEEE P802.16-REVe/D5-2004, Sponsor Ballot
Abstract	MSS capability encoding to identify support for successive interference cancellation receiver.
Purpose	Adoption of proposed changes into P802.16e
Notice	
Release	
Patent Policy and Procedures	

Capability encoding for Successive Interference Receiver (SIC)

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1 Introduction

Successive interference cancellation (SIC) receivers provide significant performance gains when used in conjunction with MIMO transmission. Subscriber stations with this receiver design can provide a considerable system capacity gain provided that base station schedulers are aware of this capability. A base station must adjust the modulation and coding rate assigned to take advantage of the superior performance. As a result, a SIC receiver capability should be included as part of a subscriber station profile and exchanged during the system registration process. This contribution defines mobile subscriber station capability encoding.

2 Proposed Text Changes

---------- Beginning of Text Changes ----------

[Add a new section 11.7.8.11]

11.7.8.11 Advanced Receiver Capability

This field indicates whether the MSS is advanced receiver capable

Type	Length	Value	Scope
21	1	Bit 0: Successive Interference Receiver Capability Bit 1-7: Reserved	REG-REQ REG-RSP