

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >
Title	<b>Capability encoding for Successive Interference Receiver (SIC)</b>
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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
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# 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