

ISO/IEC 15938-18:2025-02 (E)

Information technology - Multimedia content description interface - Part 18: Conformance and reference software for compression of neural networks

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Conformance testing	1
4.1	General	1
4.2	Conformance testing for decoder	2
4.3	Conformance testing for bitstreams	2
4.4	Models and reference bitstreams	2
4.5	Procedure to test decoders	10
4.5.1	General	10
4.5.2	Complete model	10
4.5.3	Incremental model	11
4.5.4	Decoding self-contained NNC bitstreams	11
4.5.5	Decoding NNC bitstreams using out-of-band parameters	11
4.6	Procedure to test bitstreams	11
5	Reference software	11
5.1	General	11
5.2	Software location and license	12
5.3	Software installation	12
5.4	Software architecture	12
5.4.1	General	12
5.4.2	Parameter reduction methods	13
5.4.3	Parameter approximation	14
5.4.4	Reconstruction	14
5.4.5	Encode	14
5.4.6	Decode	14
5.5	Data structures and interfaces	14
5.5.1	model_info: Shared model information	14
5.5.2	approx_data - Data structure	16
5.5.3	nnc_core - Main module	18
5.5.4	nnc_core.nnr_model - Module for handling model related functionalities	22
Annex A (informative) Implementation in Python®		25
Bibliography		26